Module: Disruptive Behavior Disorders Overview

Question: A 13 y.o. male, brought to you by his parents due to changes in behavior over the last year. He questions everything and is unsure of his future plans and beliefs. He has been staying out late at night and is often argumentative. His parents want to know if this is the initial onset of a mental illness. Your best answer is:

A. Not at all, these changes are normal for his age
B. Most likely this reflects the identity crisis period of development, but further assessment is needed
C. Most likely this is bipolar disorder, manic phase
D. It is unlikely to be a disruptive behavioral disorder
E. ADHD

Developmental Terms

■ Disruptive behaviors: purely descriptive label for a heterogeneous group of children that share behavioral problems
■ Terrible twos developmental stage between ages 18-36 months; children express their growing individuation and autonomy
  ◆ Autonomy vs. shame and doubt
■ Identity crisis is a normal developmental stage in teenagers as they struggle to establish an individual identity separate from their parents
  ◆ Identity vs. role confusion

DSM-IV Classification

■ Oppositional defiant disorder
■ ADHD
■ Conduct disorder
■ Disruptive disorder NOS

Other diagnostic categories may present with disruptive behavior:

■ Impulse control disorders: intermittent explosive disorder
■ Mood disorders
■ Substance use disorders
■ Personality disorders

Question Based Learning
Lecture Modules

■ Disruptive Behavior Disorders Overview
■ Review of Learning Theory
■ Oppositional Defiant Disorder
■ ODD Treatment
■ Conduct Disorder
■ CD Risk Factors
■ CD Course & Prognosis
■ CD Assessment & Screening
■ CD Treatment
Aggression Classification
- Overt aggression: confrontational, fighting
- Covert aggression: non-confrontational, passive
- Proactive aggression: manipulative, intentional, goal directed, cold-blooded; requires no provocation; directed toward possessing objects or dominating (think conduct disorder, ASPD)
- Reactive aggression: emotional, hot-blooded, impulsive; a response to provocation; more treatable (think impulsive, mood, substance use disorders)

Module: Review of Learning Theory

Question: A token economy is an example of which of the following?
A. Classical conditioning
B. Operant conditioning
C. Modeling
D. Punishment
E. Exposure response prevention

ABCs
- Behavior is modified by Antecedents and Consequences
- Conditioning means learning
- Two types of learning
  - Modified by antecedents: classical conditioning
  - Modified by consequences: operant conditioning

Classical Conditioning
- Classical conditioning (Pavlovian conditioning)
  - Type of learning in which involuntary (reflexive) behaviors are elicited by antecedent conditions (triggers)
  - AKA ‘respondent conditioning’ because behavior is a response to antecedent
  - A neutral stimulus becomes associated with a biologically significant stimulus, called an unconditioned stimulus (US) to become a conditioned stimulus (CS). The CS triggers a response (CR) similar to the unconditioned response (UR) to the US

Classical Conditioning Example: Pavlov’s Dog
- Pavlov’s dog: salivates at the sound of a bell that was repeatedly paired with meat
- Definitions
  - Meat = unconditioned stimulus (US)
  - Salivation = unconditioned response (UR)
  - Bell = conditioned stimulus (CS)
  - Salivation to bell = conditioned response (CR)

Classical Conditioning Examples: PTSD
1. Child is sexually abused by uncle, who gives the child a lollipop after each episode of abuse. As an adult, the victim feeling intense shame, rage, and fear as well as a racing heart each time they see or are reminded of a lollipop
2. Teen is at Boston marathon, hears loud boom, and sees and hears victims bloodied and screaming. On 4th of July, teen experiences intense fear when fireworks go off

Operant Conditioning
- Operant conditioning (Skinnerian conditioning)
  - Behavioral modification of voluntary behaviors occurring through use of (reinforcing and punishing) consequences
  - AKA, instrumental conditioning
  - Systematic use of reinforcing and punishing consequences is called contingency management

Operant Conditioning Definitions
- Reinforcement: a consequence that causes a behavior to increase
- Punishment: a consequence that causes a behavior to decrease
- Extinction: no change in consequence causes a behavior to decrease
- Negative: subtraction of a stimulus
- Positive: addition of a stimulus
Operant Conditioning Theory

<table>
<thead>
<tr>
<th>Positive stimulus</th>
<th>Increase likelihood of behavior</th>
<th>Decrease likelihood of behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive reinforcement (add appetitive stimulus)</td>
<td>Punishment (add aversive stimulus)</td>
<td></td>
</tr>
<tr>
<td>Negative stimulus</td>
<td>Negative reinforcement (remove aversive stimulus)</td>
<td>Response Cost / Loss of Privileges (remove appetitive stimulus)</td>
</tr>
</tbody>
</table>

Reinforcement Examples

- **Positive reinforcement**
  - Child receives an iPad after getting straight A’s. Leads to better performance next semester
  - Child keeps getting into trouble in school. As a consequence, each time parents are called for teacher/parent conference. Parents more involved. Leads to child’s increased acting out in school

- **Negative reinforcement**
  - Dad nags child to take out garbage. Finally, child takes out garbage and dad stops nagging. Leads to child taking out garbage in future to avoid nagging

Punishment Examples

- **(Positive) Punishment**
  - Child shoplifts, is caught, and spends night in detention center. Never shoplifts again

- **(Negative) Punishment: loss of privileges**
  - Child breaks curfew, loses use of car for 1 week

**Note:** is it reinforcement or punishment? Not based on anyone’s opinion, but on whether behavior increases or decreases going forward

- Child breaks curfew. Parents ‘ground’ child at home, believing that is punishment. Child breaks curfew more often. Grounding is reinforcing

Extinction & Reinforcement

- **Extinction:** lack of any consequence following a behavior causing less frequent occurrence
- **Continuous reinforcement:** rewarding consequence presented each time. Leads to rapid acquisition of a behavior, but most susceptible to extinction
- **Intermittent reinforcement:** rewarding consequence presented some of the time. Results in increased resistance to extinction
  - Variable/fixed ratio; variable/fixed interval

Token Economy

- Behavior modification through contingency management: reinforcement and punishment
- A token economy is a system where something, a token, represents a unit of value that can be exchanged for an item or service
- Child who engages in appropriate behaviors will be rewarded by earning tokens (points, chips, etc.) that they can exchange
- Child who engages in inappropriate behaviors may lose tokens

Module: Oppositional Defiant Disorder

**Question:** An 8 y.o. child with the diagnosis of ODD is more likely to have which of the following conditions?

- A. Bipolar disorder
- B. ADHD
- C. Conduct disorder
- D. Separation anxiety disorder
- E. Substance abuse problems

Diagnosis

- A pattern of negativistic, hostile, and defiant behavior lasting at least 6 months (4 present)
  - Often loses temper
  - Argues with adults
  - Actively defies or refuses to comply with adult
  - Often deliberately annoys people
  - Angry and resentful, touchy or easily annoyed
  - Often spiteful and vindictive

- **Criteria not met for conduct disorder, or be part of psychotic or mood disorder**

Notes:
Features
- Most commonly emerges in late-preschool or early school aged children
- Point prevalence: 6%, lifetime prevalence: 10%
- Boys outnumber girls in the prepubertal age range, after which two genders are more equal
- 25% with this disorder will have no further diagnosis
- Most common comorbidity of ODD is ADHD
- Severe ODD more likely to progress to CD

Risk Factors
- More common in families in which at least one parent has a history of mood disorder, ODD, ADHD, substance abuse, or antisocial PD
- Family discord, crowded families
- Abuse or neglect, harsh or inconsistent discipline
- Lack of supervision
- Lack of positive parental involvement
- Elevated levels of dehydroepiandrosterone (DHEAS) – changes in HPA axis from stress

Comorbidities
- ADHD: 50%–65%
- Mood and anxiety disorders: 35%
  - 20% will have extensive mood problem, bipolar disorder
- Personality disorder: 15% will develop

Course & Prognosis
- Progression
  - Severe ODD, especially when comorbid with ADHD, more likely to progress to CD and then to antisocial PD
  - 30%–40% of boys with severe ODD progress to CD, and of those 40%–50% develop antisocial PD
- Gender paradox
  - Girls may have less positive outcomes, higher rate of comorbidities
- Positive outcomes
  - No substance abuse
  - Positive outcomes are more likely in intact families

Module: ODD Treatment

Question: A parent of a 12 y.o. boy with ODD with comorbid depression seeks treatment for him. Which of the following approaches has the best scientific evidence to treat him?

A. Risperidone medication
B. Valproic acid medication + DBT
C. Treat comorbidity and initiate behavioral therapy
D. Exposure & response prevention + SSRI s
E. E-Play therapy and gabapentin medication

Medication Treatments
- Treat comorbidities: ADHD, mood, anxiety
- Medications for ODD
  - No clear evidence of benefit from medications for ODD per se
- ADHD symptoms
  - Stimulants: diminishes aggression in classroom
  - α2 agonists: clonidine, guanfacine
  - Atomoxetine
  - Buspirone

Psychosocial Treatments
- Behavior modification
- Parent management training
- Parent–Child Interaction Training (PCIT)
  - Empirically-supported treatment for young children
  - Improves parent–child relationship and changes interactions
- Family therapy: improves communication and increases positive parent–child interaction

Behavior Modification ABCs
- Antecedents: analyze environmental factors that elicit problem behavior
- Behavior: analyze and describe problematic behavior in form of overt behavior – behaviors one can see and identify
- Consequences: analyze environmental responses that reinforce or punish current behaviors. Then alter contingencies to reinforce pro-social behaviors, and punish disruptive behaviors

Notes:
Parent Management Training

Goals
- Correct maladaptive parent–child interactions
- Instill consistent, non-coercive discipline

Implementation
- Small group therapy sessions for parents (8–16)
- Observation of parent–child interaction

Contingency management program: parents taught to
- Modify expression of demands
- Give less attention to child’s argumentative behavior
- Set up reasonable, age appropriate limits with consequences that can be enforced consistently

Family Therapy

The primary therapy is family intervention
- CBT approach
- Structural approach
- Systemic approach
- Psychodynamic approach

CBT family therapy
- Identify problematic behaviors and set realistic and agreeable goals with homework assignments
- Monitor improvement, review and reinforce positive outcomes

Module: Conduct Disorder

Question: Factors associated with the development of a conduct disorder include which of the following?
A. Temperament
B. Viewing televised or other media violence
C. Disturbed laterality, reading disorder
D. Chronic medical illness
E. All of the above

Overview
- CD symptoms are clustered in four areas
  - Aggression to people and animals
  - Destruction of property
  - Deceitfulness and theft
  - Serious violations of rules
- Male to female ratio: 4:1 to 12:1
- Stable diagnosis: criteria usually met 3–4 years later

Diagnosis

At least 3 out of 15 anti-social behaviors must be present over a period of 12 months with at least one occurring in the past 6 months
- Frequently bullies, threatens, or intimidates
- Physically cruel to people
- Physically cruel to animals
- Steals while confronting a victim
- Forces someone into sex activity
- Use of a weapon that can cause serious physical harm to others (bat, brick, knife, gun)
- Deliberately engages in fire setting with the intention of causing serious harm
- Deliberately destroys others’ property (other than fire setting)
- Breaks into someone else’s house
- Lies to obtain goods, favors, or to avoid obligation (i.e., cons others)
- Steals items of nontrivial value without confronting
- Engaging in frequent school truancy beginning before the age of 13
- Often stays out at night despite parental prohibition before 13 y.o.
- Runs away from home overnight at least twice while living in parental or parental surrogate home (or once for a lengthy period)
- If 18 years of age or above criteria are not met for anti-social personality disorder
- Symptoms cause significant impairment in
  - Social, academic, occupational functioning

Diagnostic Specifiers
- Mild: few if any conduct problems in excess of those required to make the diagnosis; conduct problems cause minor harm to others
- Moderate: symptoms in between
- Severe: conduct problems are many in excess of those required to make the diagnosis or cause considerable harm to others
- Adolescent onset

Notes:
Module: CD Risk Factors

Question: Which of the following is true about conduct disorder?

A. The diagnosis of conduct disorder per se correlates with imprisonment as an adult
B. The presence of a learning disorder is not associated with the prognostic outcome of conduct disorder
C. Better outcome with co-existing mood disorder
D. Poor IQ and parental criminality predicts a high risk of incarceration later in life

Etiology

- Conduct disorder appears to result from interaction among the following factors:
  - Genetic predisposition and temperament
  - Poor parenting
  - Parent role model of impulsivity & rule-breaking (social learning)
  - Association with delinquent peer group
  - Medical conditions
  - Psychological and physical trauma (abuse, loss)
    - May trigger oppositional and disruptive behavior as a defense against feeling helpless and anxious

Biological Factors

- Low levels of serotonin
- Low 5-HIAA level in CSF correlates with aggression and violence
- Low levels of plasma dopamine B-hydroxylase
- High levels of cortisone & testosterone
- Disturbed language and communication
- Early physical maturation in girls
- Temperament

Psychodynamic Factors

- Unresponsive parents may lead to anxious-avoidant parental attachment – linked with oppositional children
- Inappropriate aggression at an early age, especially in combination with shyness, predicts later conduct disorder
- Unresolved conflict with authority
- Abused children: ego defense mechanism of identifying with the aggressor (process by which one incorporates within oneself the mental representation of a person who is the source of fear, pain or frustration)

Parental and Family Factors

- ODD and CD aggregates in families
  - High genetic correlation for both ODD & CD
  - Poor neighborhood & low SES of parents
- Poor parenting
  - Parental aggression
  - Harsh inconsistent discipline
  - Lack of supervision
  - Lack of warmth

Behavioral Factors

- Operant conditioning
  - Parents provide attention to problem behavior (positively reinforce) and ignore good behavior (leading to extinction)
- Social learning
  - Child learns from parents and peers that aggression is often effective
- Behavioral modeling
  - Child learns from televised and media violence
  - Peer pressure influence

Medical Condition Factors

- Chronic medical conditions
  - In one study medically ill children had 4 times the risk of CD
- Seizure disorders
- Physical and/or head trauma
- Substance abuse
- Cognitive problems leading to school failures

Notes:
Module: CD Course & Prognosis

Prognosis

- Poor prognosis factors
  - Comorbid conditions
  - Poor language skills
  - Childhood-onset CD
- Females with CD
  - Increased suicide risk
  - More prone to substance abuse and other comorbidities
- Good prognostic factors
  - Female gender
  - Higher IQ
  - Good academic skills and performance
  - Good interpersonal skills
  - “Easy” temperament
  - Presence of positive relationship with adult

Prevention

- Build resilience and skills, nurture positive relationships, enroll in Head Start, abort path to delinquency

Children Who Bully

- May witness physical and verbal violence at home
- Develop a positive view of this behavior and act aggressively toward other people including adults
- Are often physically strong
- May or may not be popular with other children of their same age
- Have trouble following rules
- Show little concern for the feelings of others
- Some children both bully others and are bullied

Childhood-Onset Conduct Disorder

- Onset of at least 1 criterions before age 10
- Previous ODD: 90% of males with CD
- Predominantly male
- Progression: covert behavior, authority conflict, overt behaviors
- Frequently display physical aggression
- Frequently disturbed peer relationships
- More likely to have persistent CD, and progress to antisocial personality disorder

Adolescent-Onset Conduct Disorder

- Absence of conduct disorder prior to age 10
- Less likely to display aggressive behaviors
- Tend to have more normal peer relationships
- Less likely to have persistent CD or to progress to antisocial personality disorder
- Ratio of males to females is also lower than for the childhood-onset type

Module: CD Assessment & Screening

Question: A 15 y.o. male was suspended three times in this school year for attacking other classmates and threatening girls. He was caught with a knife in his pocket. His mother says he lies constantly and steals from his teachers and mother. He ran away from home two days ago and the police were called. Which test will best assess this child for conduct disorder?

A. Peabody Individual Achievement Test  
B. Multimodal assessment of conduct, physical & psychological features  
C. Urine drug screen  
D. Family meeting & environmental assessment  
E. IQ testing and aggression scale

Psychiatric Assessment

- Multimodal assessment of conduct
  - Evaluate each instance of conduct disturbance
  - Risk factors for conduct disorder
  - Use appropriate assessment instruments
- Thorough assessment for comorbidities
  - ADHD, mood, anxiety, substance use
  - Learning and communication disorders, low IQ
- Neuropsychological testing:
  - IQ test, achievement test, individual cognitive tests or batteries
Medical Assessment
- Physical exam
  - Vision or hearing screening
  - Medical and neurological conditions: seizure disorder, other CNS illness, chronic illnesses
  - Signs of abuse
  - Head trauma (traumatic brain injury)
  - (Extensive somatization should be evaluated for)
- Labs
  - TSH, HIV, Hep B & C, pregnancy
  - Urine or blood toxicology screen

Assessment Instruments
- Overt Aggression Scale: verbal and physical
  - Screening and outcome scale
- Children’s Aggression Scale: ages 6-11
  - Based on parent or teacher report
- Antisocial Process and Screening Device
  - Measures callousness, narcissism, impulsivity
- Brief Psychiatric Rating Scale (BPRS)
- fMRI: aggressive adolescents showed a specific activation of the amygdala and ventral striatum (an area that responds to feeling rewarded) when watching pain inflicted on others

Comorbidities
- ADHD & ODD
  - Presence of ADHD is predictive of early onset conduct disorder
  - Presence of ADHD with CD increases risk of mood disorder and worsens the prognosis
- Learning disorders: mainly reading disorder
- Bipolar disorder
- Substance abuse
- Depression: CD with comorbid depression increases risk of substance abuse in the future and carries worse prognosis
- Anti-social personality disorder: lack of emotional reactivity and callousness in CD predicts future APD
- Cognitive impairment carries poor prognosis

Module: CD Treatment

Question: Which of the following aspects of conduct disorder is associated with the best prognosis and the least persistence of aggression through adulthood?
A. Onset in early childhood
B. Onset in adolescence
C. Comorbidity with a mood disorder
D. Onset following the diagnosis of ODD
E. Poor relationship with a parent

Management Approach
- Multimodal approach
  - Involve everyone who interacts with patient
  - Parents, teachers, coaches, Juvenile Justice
- Psychotherapies
  - Parent management training
  - Problem-solving skill training
  - Multisystemic therapy
- Medications

Multimodal Intervention
- Most effective evidence-based treatment approach is multisystemic therapy
- Functional family therapy: parental training in child behavior management
- Individual therapy: usually CBT
- Group therapy: social skills training
- Use of community resources: churches, Big Brother, Big Sister Program, mentors
- Not useful: shock (Scared Straight) or onetime interventions

Multisystemic Therapy
- Intensive family and community-based
- Typical duration of home-based MST services is 4 months, with multiple contacts each week
  - MST therapists are actively involved with their patients – mirrors intensive case management models
- Indications
  - Juvenile offenders
  - Conduct disorder
  - Oppositional defiant disorder
  - Juvenile substance abuse disorders
Multisystemic Therapy cont’d

- Delinquent behaviors are multi-determined
  - Risk factors are related to the juvenile himself, family, peer group, school, and neighborhood

- MST targets problems at each system level through
  - Cognitive restructuring
  - Behavioral techniques
  - Parental training
  - Family therapy
  - Pharmacotherapy

- Interventions are carried out at home, in school and in community

- Utilization of existing family and community resources: churches, youth groups, mentors

- MST services are delivered in the natural environment (e.g., home, school, community)

- The plan is designed in collaboration with family members (family driven, not therapist driven)

- The ultimate goal of MST is to empower families to build an environment, through the mobilization of indigenous child, family, and community resources that promote health

Individual Therapy

- Cognitive behavioral therapy
  - Rehearsal, role-playing, in vivo practice
  - Provide support along with consistent rules and expected consequences

- Social skills training
  - Active listening and communication roadblocks
  - Problem solving
  - Ignoring provocation, recognizing feelings

- The earlier it starts the better

Medications

- No clear evidence of benefit. Treat comorbidities

- Stimulants: may diminish aggression within the classroom setting

- Haloperidol: may decrease explosive outbursts and assaultive behavior in children

- Risperidone & aripiprazole: decreases self-mutilation and aggression in autistic children

- Lithium: diminishes aggression in children with outbursts, assaultive behavior, and unstable mood

Vignette

Paul, a 13 y.o. male, is brought to you by his parents due to changes in behavior over the last 2 years. He questions everything and is unsure of his future plans and beliefs.

He has been staying out late and questioning his abilities to succeed in life. His parents are concerned that he might have a mental illness.

Vignette MCQ 1: Based on the information, your best initial assessment of the child to explain to the parents is:

A. Not at all, these changes are normal for his age
B. Most likely this reflects the identity crisis period of development, but further assessment is needed to rule out mental illness
C. Most likely this is bipolar disorder, manic phase
D. It is unlikely to be the start of any mental illness
E. ADHD
Answer Key

Question: A 13 y.o. male, brought to you by his parents due to changes in behavior over the last year. He questions everything and is unsure of his future plans and beliefs. He has been staying out late at night and is often argumentative. His parents want to know if this is the initial onset of a mental illness. Your best answer is:
   A. Not at all, these changes are normal for his age
   B. Most likely this reflects the identity crisis period of development, but further assessment is needed
   C. Most likely this is bipolar disorder, manic phase
   D. It is unlikely to be a disruptive behavioral disorder
   E. ADHD

Question: A token economy is an example of which of the following?
   A. Classical conditioning
   B. Operant conditioning
   C. Modeling
   D. Punishment
   E. Exposure response prevention

Question: An 8 y.o. child with the diagnosis of ODD is more likely to have which of the following conditions?
   A. Bipolar disorder
   B. ADHD
   C. Conduct disorder
   D. Separation anxiety disorder
   E. Substance abuse problems

Question: A parent of a 12 y.o. boy with ODD with comorbid depression seeks treatment for him. Which of the following approaches has the best scientific evidence to treat him?
   A. Risperidone medication
   B. Valproic acid medication + DBT
   C. Treat comorbidity and initiate behavioral therapy
   D. Exposure & response prevention + SSRIs
   E. E-Play therapy and gabapentin medication

Question: Factors associated with the development of a conduct disorder include which of the following?
   A. Temperament
   B. Viewing televised or other media violence
   C. Disturbed laterality, reading disorder
   D. Chronic medical illness
   E. All of the above

Question: Which of the following is true about conduct disorder?
   A. The diagnosis of conduct disorder per se correlates with imprisonment as an adult
   B. The presence of a learning disorder is not associated with the prognostic outcome of conduct disorder
   C. Better outcome with co-existing mood disorder
   D. Poor IQ and parental criminality predicts a high risk of incarceration later in life

Question: A 15 y.o. male was suspended three times in this school year for attacking other classmates and threatening girls. He was caught with a knife in his pocket. His mother says he lies constantly and steals from his teachers and mother. He ran away from home two days ago and the police were called. Which test will best assess this child for conduct disorder?
   A. Peabody Individual Achievement Test
   B. Multimodal assessment of conduct, physical & psychological features
   C. Urine drug screen
   D. Family meeting & environmental assessment
   E. IQ testing and aggression scale

Question: Which of the following aspects of conduct disorder is associated with the best prognosis and the least persistence of aggression through adulthood?
   A. Onset in early childhood
   B. Onset in adolescence
   C. Comorbidity with a mood disorder
   D. Onset following the diagnosis of ODD
   E. Poor relationship with a parent
Vignette MCQ 1: Based on the information, your best initial assessment of the child to explain to the parents is:
   A. Not at all, these changes are normal for his age
   B. Most likely this reflects the identity crisis period of development, but further assessment is needed to rule out mental illness
   C. Most likely this is bipolar disorder, manic phase
   D. It is unlikely to be the start of any mental illness
   E. ADHD