The Fundamentals of Childhood Disorders

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Learning Objectives

- Provide education on the epidemiology, pathology, diagnosis, and treatment of various child and adolescent psychiatric disorders
- Recognize clinical symptoms in the classroom setting to assist educators in providing appropriate resources
- Modify existing modules to better serve populations with mental health concerns

The Diagnostic Dilemma

- Regardless of the presenting symptoms, Children and Adolescents are often referred for an evaluation for ADHD
- Any difficulty the classroom setting is immediately classified as ADHD concerns

Case Presentation #1

- 13 year old female presents with decline in grades for the past three months and teachers report the following concerns:
- Difficulty paying attention, poor focus, staring off during class, unable to complete assignments on time, difficulty with multi tasking, disorganized, forgetting to turn in homework, lack of motivation, difficulty sitting in her seat, running out of the classroom

Case Presentation #1

- Differential Diagnoses include ADHD, Anxiety Disorder, Major Depressive Disorder, Processing Disorder, Absence Seizure

ADHD Epidemiology

- Most common childhood disorder
- Worldwide prevalence rate is 5.3%
- 2011 National Survey of Children's Health performed telephone interviews of nearly 100,000 parents of children ages 4-17 years → 11% received a diagnosis of ADHD at some point in their lives, 8.8% had a current diagnosis of ADHD, and 6.9% taking medication of ADHD
- 2003 to 2011→ Parent reported ADHD increased 43% and medication use increased by 28%

ADHD Criteria

- Symptoms present for 6 months to a degree that is maladaptive and inconsistent with the developmental level of the child
- Clear evidence of clinically significant impairment present in two or more settings
- Onset of impairment must be before age 7, even if it was not diagnosed until later

ADHD

Inattention Symptoms (6 of 9):
Careless mistakes
Attention difficulty
Listening problem
Loses things
Fails to finish things
Organizational skills lacking
Reluctance in tasks requiring sustained mental effort
Forgetful in **R**outine activities
Easily **D**istracted

ADHD

- Hyperactive-Impulsive Sx (6 of 9):
  Runs about or is restless
  Unable to wait his/her turn
  Not able to play quietly
  On the go
  Fidgets with hands or feet
  Blurts out answers
  Staying seated is difficult
  Talks excessively
  Tends to interrupt

ADHD

- Note exclusion criteria: ADHD is not diagnosed if the symptoms occur in the course of a pervasive developmental disorder, psychotic disorder, or if the symptoms are likely due to another psychiatric disorder (e.g., mood disorder, anxiety disorder, dissociative disorder, obsessive-compulsive disorder, oppositional defiant disorder)

ADHD Diagnosis

- **ADHD, Primarily Inattentive Type**
  if 6 mos. of 6 inattentive symptoms
- **ADHD, Primarily Hyperactive-Impulsive Type** if 6 mos. of 6 hyperactive-impulsive symptoms
- **ADHD, Combined Type** if 6 mos. of 6 inattentive symptoms and 6 mos. of 6 hyperactive-impulsive symptoms

ADHD Epidemiology

- Occurs in 3-12% of school-aged children
- Boys 4-9x > girls
- Most common type is combined type

ADHD

Boys are diagnosed with all subtypes more often than girls, but when girls are diagnosed, they are most often diagnosed inattentive type

Must evaluate for co-existing conditions, because

30-50% of ADHD may be co-morbid with other diagnoses

ADHD Co-morbid Conditions

Other Disruptive Behavior Disorders such as

-Oppositional Defiant Disorder:

Pervasive pattern of negativistic, defiant, disobedient, and hostile behaviors toward authority figures

-Conduct Disorder:

Repetitive pattern of violating the basic rights of others and/or societal laws

ADHD Co-morbid Conditions

-Mood disorders, such as depression or bipolar disorder; check family history; co-morbid teens have higher rates of suicide

-Anxiety disorders – 25% or more

-Learning disorders – up to 60%, especially Reading Disorder

AAP Clinical Practice Guidelines:

- Other diagnostic tests are not *routinely* indicated

  -EEG' s indicated only if a history of seizures or clinically significant lapses in consciousness exist

  -Continuous Performance Tests (such as TOVA) are useful in research settings only, not diagnostically; these tests measure vigilance/distractibility which have low odds ratios in differentiating children with and without ADHD

AAP Clinical Practice Guidelines

- Use explicit criteria for diagnosis
- Obtain history from more than one setting
- Symptoms must be severe enough to cause functional impairment
- Screen for co-existing conditions
- May need 2-3 visits for full work-up and diagnosis
- Parent and teacher questionnaires

Theories of ADHD

- Heterogeneous, with many causes
- Factors include genetic, prenatal/perinatal factors (maternal smoking and alcohol use), neurotoxins (such as lead)
- Psychosocial stressors can, at times, exacerbate symptoms

Treatment

- Psycho-educational Interventions, such as cognitive-behavioral therapy, to improve impulse control, and parent management training
- Classroom strategies and modifications
- Parent Education and Empowerment
  -www.parentshelpingparents.com

Treatment

Stimulants, first line:

- 250 reviews of stimulant treatment (MPH) show they are effective in adolescents and preschoolers, as they are in school age children (Greenhill et al 2006)
  - methylphenidates 0.3-1 mg/kg/day
  - amphetamines 0.15-0.5 mg/kg/day
  - Amphetamines preferred in seizure-disordered patients

Common side effects include appetite loss, sleep disturbance, and some changes in pulse and blood pressure. Also more serious side effects such as dysphoria, irritability, and precipitation or exacerbation of tics

Treatment

- New options in the methylphenidate class:
- Dexmethylphenidate (Focalin and Focalin XR) is better tolerated than methylphenidate by some patients.
- Dosing is similar to amphetamine
- Methylphenidate transdermal system (Daytrana patch) provides up to 12-hour effect.

Treatment

- Atomoxetine (Strattera)- non stimulant agent
- Dose: 0.5-1.2 mg/kg/day; max dose 1.4 mg/kg/day or 100 mg. (whichever is less)
  - Advantage: 24 hour effect
  - CYP2D6 substrate, so caution with medications such as paroxetine, fluoxetine
  - Common side effects: nausea, headache, anorexia, insomnia

Treatment

- Bupropion (Wellbutrin)
- 3-6 mg/kg/day; dose qAM up to 150 mg/day; above that, divide the daily dose bid

Side effects: weight change, dry mouth, headache, GI effects, insomnia; contraindicated in seizure disorders, eating disorders or with MAOIs

Treatment

- Venlafaxine (Effexor XR)
- 37.5-150 mg qAM

Common side effects: Nausea, dizziness, somnolence, constipation

Guanfacine (Intuniv)- Alpha2 receptor agonist

Dose: 1-4 mg/day

Slow taper to avoid rebound hypertension

Side effects: hypotension, somnolence

Treatment

- Clonidine (Catapress)- alpha2 receptor agonist
- Dose: 3-10 **mcg**/kg/day, divided tid
- Side effects: dry mouth, dizziness, drowsiness, fatigue, constipation, arrhythmias
- Monitor EKG, BP, Pulse
- Slow taper to avoid rebound hypertension
- May use patch and change every 5 days

Treatment

- Psychosocial interventions include Behavioral Parent Training- modest reduction in parent ratings of ADHD behavior
- Dietary interventions- randomized trials for three particular dietary changes revealed insignificant responses due to small sample size, improper blinding of the study
  - Restricted elimination diets, artifical food color elimination, supplement with free fatty acids

Conduct Disorder Epidemiology

- Prevalence ranges from 2% to 10% in community studies
- Lifetime prevalence of 12% for males and 7.1% for females (Nock et. Al 2006)
- More prevalent among boys than girls with rates three to four times higher → prompted discussion to modify diagnosis for girls since their antisocial behavior is less aggressive than boys
- More common in low socioeconomic status families and neighborhoods with higher crime rates
- Most frequent reason for psychiatric hospital admissions for children and adolescents

Conduct Disorder

Repetitive behaviors that violate the rights of others and/or societal laws, with 3 or more out of 15 symptoms in the past 12 mos., with one in last 6 mos:

- Aggression or cruelty to people or animals
- Destruction of property
- Theft
- Truancy
- Running away

Conduct Disorder-Childhood Onset

- Oppositional Defiant Disorder in preschool years prior to age 10 years developing into a serious conduct disorder by adolescence
- This group has a 2-3 fold likelihood of becoming juvenile offenders

Conduct Disorder-Adolescent Onset

- Behaviorally normal until middle school, when symptoms of Conduct Disorder become prevalent
- This group has a more favorable prognosis; more likely to respond to treatment

Conduct Disorder-Psychosocial Correlates

- Harsh punishment
- Institutional living
- Inconsistent parental figures (living with different relatives for years)
- Poor parental monitoring in early childhood
- Parental conflict
- Maternal depression
- Paternal alcoholism

Conduct Disorder Risk Factors

Fetal Alcohol Syndrome,
Prenatal drug exposure, **ADHD**

Note: A child with ADHD + Conduct Disorder is more likely to develop antisocial behavior persisting into adulthood than a child with Conduct Disorder alone

Conduct Disorder

- Conduct Disorder develops as a result of biological risk and childhood experiences, so there are opportunities for early intervention
- Treatment includes family therapy, behavior management training, social skills group, and teaching problem-solving skills

Conduct Disorder Treatment

- Education, mental health, juvenile justice, and child protection agencies
- Co-morbid conditions such as substance use disorders must be addressed
- Medications that reduce aggressive behavior include Lithium, antipsychotics, anticonvulsants, clonidine, and propranolol
- Risperdal is most used antipsychotic agent for aggression- randomized trial found significant improvement in youth (Pappadopulos et al. 2006)

Oppositonal Defiant Disorder Epidemiology

- Lifetime prevalence- 10.2%: 11.2% for males and 9.2% for females (APA 1994)
- Prevalence influenced by SES- higher in low SES families
- Co-Morbid conditions: ADHD, Separation Anxiety Disorder, OCD

ODD Diagnosis

- Angry/irritable mood- loses temper, easily annoyed, resentful
- Argumentative/Defiant behavior- argues with authority in two settings ie. school and home; refuses to comply with rules and authority figures; deliberately annoys others; blames others for mistakes
- Vindictiveness- spiteful at least twice in 6 months

ODD Diagnosis

- Lasting at least 6 months
- Four or more symptoms
- Exhibited during interaction with at least one individual who is not a sibling
- < 5y- occur on most days for a period of at least 6 mos.
- >5y- occur at least once a week for 6 mos.

Oppositional Defiant Disorder

- Psychological Factors
  - Associated with over-reactive response and difficulty calming down
  - Associated with insecure attachment only in school aged children; behaviors involve struggles with caregivers and issues of autonomy
  - Research in cognitive processing focus on how defiant children develop a hostile perspective on the basis of early negative experiences

Oppositional Defiant Disorder

- Children with ODD are more vigilant for hostile cues from others and twice likely to generate aggressive responses
- Have additional deficits in social problem solving, using less pertinent social information, and generating fewer alternative reactions
- Have difficulty with response preservation and motivational inhibition tasks
- One study revealed that ODD children stimulated by positive reward are less sensitive to the possibility of punishment

Oppositional Defiant Disorder

- Sociological Factors
  - Lower SES leads to increased risk mediated thru family stress
  - Poor parenting practices, parental discord, domestic violence, low family cohesion, child abuse, parental mental health disorders such as substance abuse and anti-social personality disorder
  - Studies show harsh or inconsistent limit setting is predictive of behavior
  - Developmental theories propose that parental response to normal oppositional behavior in toddlers is central in shaping adaptive social skills or increased defiance

Oppositional Defiant Disorder

- Prevention
  - Consider all programs that target age groups younger than the usual onset of the disorder- improves parenting skills and/or parent-child relationship
  - Nurse home visitation programs for at risk mothers result in lower rates of child abuse and neglect
  - Incredible Series Program- parent group training approach effective in reducing disruptive behaviors among at-risk children

Oppositional Defiant Disorder

- Rating Scales
  - Child Behavior Checklist
  - Teacher Report Form- subscale consisting of disruptive and oppositional behaviors
  - Eyberg Child Behavior Inventory, Sutter-Eyberg Student Behavior Inventory Revised- extensive reports of behaviors for children and adolescents with ODD, CD, and ADHD

Oppositional Defiant Disorder

- Treatment
  - Medications for ADHD ie. stimulants, guanfacine, clonidine reduce co-morbid oppositional behavior
  - Clinical reports indicate that Atomoxetine can reduce ODD behaviors in children
  - Therapies- parent management training and child problem solving skills demonstrate great efficacy with ODD

Tic Disorder

- Single or multiple motor or vocal tics(not both), wax and wane in frequency, nearly every day, for at least 4 weeks, but no longer than 12 months
- Onset before age 18 years
- Most transient tics are simple, not complex, and do not usually cause distress
- Not attributable to effects of a substance (cocaine) or medical condition (Huntington's, postviral encephalitis)

Tourette' s Disorder

- Multiple motor and one or more vocal tics lasting at least 1 year, many times a day, nearly every day, without a tic-free period of more than three consecutive months
- Onset before age 18 years; peak onset at age 5 to 8 years
- Severity tends to peak around 8 to 11 years, with improvement or even resolution during puberty

Tourette's Disorder Epidemiology

- Lifetime prevalence of 0.77% (Knight et al. 2012)
- Chronic tics (motor or phonic)- 1.61% lifetime prevalence rate
- Transient tics- 2.99% lifetime prevalence
- Boys 4x more prevalent than girls
- Observed in all races; rates and symptoms differ among ethnic groups

Co-morbidity of Tourette' s Disorder

- 40% of Tourette's children also meet criteria for OCD
- >20% of children with any tic disorder have OCD
- 75%-80% report premonitory urges- precede tics such as localized tingling, itch like sensations, tension in muscles

Co-morbidity of Tourette' s Disorder

- Many children with Tourette's Disorder have major depression (10%-75%) or anxiety (30%)
- 25% of school aged children with Tourette's also have ADHD, but most have impulsivity

Recognizing Tics

- Tics appear first in the face (eye blinks, grimaces) and then progress to neck, shoulders, arms, trunk, back, and legs
- Involuntary in nature and can be suppressed for minutes to hours
- Can mimic others' movements (echopraxia) or words (echolalia)
- New tic can begin with a stimulus and often increase with emotionally stimulating events- excitement or distress

Recognizing Tics

- Simple Tics- confined to one or few muscle groups, very brief (grimace, shoulder shrug, cough, sniffing sound)
- Complex Tics- involve muscle groups such as thrusting of one arm forward while slapping contralateral thigh

Non-tics

- Habits such as hair-twirling and skin-picking are not tics
- Compulsions of OCD are not tics
- Allergic throat-clearing and sniffing are not tics

PANDAS

- Pediatric Autoimmune Neuropsychiatric Disorders Associated with group A Streptococcus
- Infection may precipitate abrupt onset of tics, compulsions, emotional lability, episodic and recurrent

PANDAS

- If clinically indicated, obtain streptococcal culture, ASO titers and anti-DNAase B. If streptococcal infection is confirmed, treatment with penicillin may improve tics and OCD symptoms

Treatment

- Behavioral Interventions-reduction in severity and frequency of tics
- Habit Reversal Training- relies on competing response procedure; an action that makes it impossible to produce the tic and not readily visible to a casual observer ie. tensing of muscles in opposition to a tic or rhythmic breathing to subvert a vocal tic
- Takes several months or 8-10 sessions to become efficacious

Treatment

- Education for patient, family and school personnel
- Pharmacotherapy
  - Alpha 2 agonists- clonidine
    - Benign side effect profile, first line pharmacological treatment for moderate tics
  - Dopamine Antagonists- pimozide frequently used, Risperdal/Ziprasodone
    - prolonged QTC, EPS, tardive dyskinesia, weight gain
  - Surgical intervention
    - Implant electrodes into the globus pallidus, internal capsule, nucleus accumbens, or thalamus

Anxiety Disorders

- Anxiety Disorders occur in 15% and 32% of children and adolescents respectively
- Etiology:
  - Genetic (high heritability)
  - Environmental (rejection, assault)
  - Temperament (shy, inhibited)

Anxiety Symptoms

- Physical complaints; headache, stomachache, dramatic pain
- Difficulty falling asleep; nighttime awakening
- Overeating when mild; under-eating when severe

Anxiety Symptoms

- Avoiding outside activities or social gatherings
- Poor school performance
- **Inattention; being distracted**
- Excessive need for reassurance

Generalized Anxiety Disorder Epidemiology

- Prevalence increases with age
- Lifetime prevalence 0.4%-2.2%
- Equal gender ratios in youths than adults (2:1)
- More comorbidities and impairments (APA 2013)

Generalized Anxiety Disorder

- Excessive anxiety or worry that is difficult to control, lasts at least 6 months and creates impairment in functioning
- Accompanied by at least one of the following: **restlessness**, fatigue, **difficulty concentrating**, irritability, muscle tension, sleep disturbance

Generalized Anxiety Disorder

- Mean age of onset between 10-13 years of age
- Prevalence: Latency age 3%; adolescent 10%
- Worry themes: Academics, natural disasters, social life, physical assault

Separation Anxiety Disorder Epidemiology

- Prevalence
  - 3%-5% in children
  - More common in children and adolescents
  - Higher occurrence in females compared with males
  - Early predictors- parental depression, parental panic disorder, strong stranger anxiety during infancy
  - Persistent SAD- comorbid ODD, ADHD, maternal marital dissatisfaction; related to late development of panic disorder and depressive disorder

Separation Anxiety Disorder

- The most common anxiety disorder of childhood
- Most commonly occurs at age 7 or 8 years, but may occur in adolescence
- Psychosocial theory is that angry feelings toward parents are displaced, so the environment is perceived as threatening

Separation Anxiety Criteria

- A. Developmentally inappropriate, excessive worry concerning separation from those to whom the youngster is attached, evidenced by at least three of the following:

Separation Anxiety Criteria

-Recurrent and excessive distress when separation from home or major attachment figures occurs or is anticipated

-Persistent, excessive worry about losing, or possible harm befalling, major attachment figures

Separation Anxiety Criteria

-Persistent, excessive worry that an event will lead to separation from a major attachment figure (e.g., getting lost or being kidnapped)

-Persistent reluctance or refusal to go to school or elsewhere because of fear of separation

Separation Anxiety Criteria

-Persistently, excessively fearful or reluctant to be alone or without major attachment figures at home or without significant adults in other settings

-Persistent reluctance or refusal to go to sleep without being near a major attachment figure or to sleep away from **home**

Separation Anxiety Criteria

-Repeated nightmares involving the theme of separation

-Repeated complaints of physical symptoms (such as headaches, stomachaches, nausea, or vomiting) when separation from major attachment figures occurs or is anticipated

Separation Anxiety Criteria

B. The duration of the disturbance is at least 4 weeks

C. The onset is before age 18 years

D. The disturbance causes clinically significant distress or impairment in social, academic or other important areas of functioning

Separation Anxiety Disorder

- School refusal is a frequent symptom
- Co-morbid depression may be present
- Treatment consists of individual and family therapy and psycho-education, and, if that is not sufficient, or if symptoms are severe, medications may be necessary

Obsessive Compulsive Disorder Epidemiology

- Prevalence
- 1%-2% in pediatric populations in the US
- Lower SES and lower IQ associated with OCD in youth
- Two peaks of incidence- preadolescent children and early adult life (age 21)
- Childhood onset occurs in 30%-50% of cases

OCD Epidemiology

- Prepubertal age of onset- male predominant; related to immune mediated pathology (PANDAS)
- Pediatric OCD is more familial and has a more favorable prognosis
- Children with OCD perform rituals without well developed obsessions ie. feeling bad or uneasy rather than specific cognitions
- Age nor gender at onset determine number or severity of OCD symptoms

OCD Epidemiology

- Boys report sexual obsessions (anxiety provoking thoughts about being homosexual), Girls report hoarding symptoms
- Pediatric OCD male preponderance (3:2 male to female); Boys have earlier age at onset than girls
- Mean age of onset is 9 to 10 years with majority of childhood onset between age 6 and 12.5 years

Obsessive-Compulsive Disorder

- Recurrent, time-consuming obsessions or compulsions that cause distress and/or impairment. The compulsive behaviors are often an attempt to reduce the obsessive thoughts.

Obsessive-Compulsive Disorder

- Half of adults with OCD report their symptoms began in childhood or adolescence
- High degree of genetic etiology
- 10% may have been precipitated by PANDAS

Obsessive-Compulsive Disorder

- In PANDAS, it is thought that anti-neuronal antibodies formed against the group A beta-hemolytic streptococcal cell wall antigens may cross-react with caudate neural tissue.

Obsessive-Compulsive Disorder

- First-line treatment is cognitive- behavioral therapy
- sertraline is approved for OCD age 6+ years
- fluvoxamine age 8+ years
- Caution: monitor drug interactions

Selective Mutism Epidemiology

- Prevalence of 0.03%-1% depending on the setting
- Prevalence does not vary by gender, race, or ethnicity
- More likely to manifest in children than adolescents
- Onset between age 3y to 5y
- Chronic course- children who do not improve prior to adolescence may have a more persistent form

Selective Mutism

- Children are unable to speak in certain social situations despite an established capacity to speak in other situations
- Duration of mutism is at least one month and not limited to the first month of school
- Mutism is not due to a lack of knowledge or comfort with the language
- Mutism is not better explained by a communication disorder

Selective Mutism

- Transient Mutism- short periods or in response to stressors- first month of school or move to a new home
  - Children may refuse to speak after immigrating to a new country because they lack knowledge of the new language
- Associated Features- excessive shyness, fear of social embarrassment, social isolation and withdrawal, clinging, compulsive traits, negativism, temper tantrums (APA 2013)

Selective Mutism Therapy Contd…

- Social interactions are rewarded along a hierarchy of feared speaking situations
- Adults, siblings, classmates encouraged not to speak for the child
- Efforts at non verbal communication (pointing and participating in activities) reinforced and over time verbal behaviors are rewarded
- Stimulus fading- gradual removal of objects or people that increase child's comfort are used initially to develop comfort with therapist and later to develop comfort with people and areas in the school setting to generalize speech

Anxiety Disorder

- Rating Scales
  - Behavior Assessment System for Children, Second Edition- offer multiple perspectives of child's functioning
  - Multidimensional Anxiety Scale for Children-2 (MASC-2), Screen for Child Anxiety Related Emotional Disorders (SCARED), Spence Children's Anxiety Scale (SCAS)- self report measures that focus on symptoms commonly associated with anxiety disorders in children, are specific and sensitive to assessing clinical levels of anxiety in youth, sensitive to change

Anxiety Disorders

- GAD- CBT, relaxation skills such as diaphragmatic breathing and muscle relaxation; cognitive restructuring is vital to challenge persistent worries and negative thought patterns
- SAD- Exposure based CBT emphasizes on social skills training with a parent component improves self measures of anxiety and depression through treatment and after 1 year follow up
- Selective Mutism- most interventions don't target communication deficits, developmental delays
  - Psychotherapy focused on verbal and nonverbal communication skills and anxiety management combined with a behavioral program in school

Anxiety Disorders

- Pharmacotherapy
  - SSRIs- first line – primary fluoxetine and sertraline for childhood anxiety disorders such as SAD, GAD, SOC, School refusal, specific phobias
  - Fluoxetine and Sertaline have been studied in medication trials in pediatric populations
  - Paroxetine- showed an adverse reaction to treatment- vomiting, decreased appetite, insomnia, elevated rate of SI/behavior
  - Use of paroxetine declined from 2005 to 2009
  - Fluoxetine vs. Placebo- 122 adolescents study-> superior in reducing social distress and improve functionality in SOC
  - Escitalopram- no pediatric studies

Major Depressive Disorder

- Depression frequency varies with age and gender
  - Preschool – 0.3%
  - Pre-pubertal children-0.4% to 3%
  - Adolescents – 0.4% to 6.4%

  *Rates in males and females are equal until adolescence when females outnumber males 2-3:1

Major Depression Diagnostic Criteria

- At least 5 of 9 symptoms for a 2-week period, representing a change in previous functioning
- At least one of the symptoms must be depressed mood (irritable in children) or loss of interest or pleasure in usual activities

Major Depression Criteria

1. Depressed mood (feels sad or empty) by self-report or observation
2. Diminished interest or pleasure in most activities
3. Weight gain or weight loss; in children, failure to make expected weight gain

Major Depression Criteria

4. Insomnia or hyper-somnia nearly every day
5. Psychomotor agitation or retardation nearly every day, observable by others
6. Fatigue or loss of energy

Major Depression Criteria

7. Feelings of worthlessness or guilt (which may be delusional)
8. Inability to concentrate; indecisiveness
9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan

Major Depression Criteria

- The symptoms cause clinically significant distress or impairment
- The symptoms do not meet criteria for a Bipolar Mixed Episode
- The symptoms are not better accounted for by bereavement (>2 mos. after the loss)

Major Depression Symptoms

- Symptoms that increase with age:
  - Sleep/Appetite Changes
  - Fatigue
  - Anhedonia ("I'm bored")
  - Psychomotor retardation
  - Hopelessness
  - Delusions

Major Depression Symptoms

- Symptoms that decrease with age, but may be seen in children:
  - **Somatic complaints (head, stomach, muscle aches)**
  - **Behavioral problems**
  - **Guilt, irritability**
  - **Hallucinations**

Major Depression Symptoms

- Symptoms that are consistent across age groups:
  - **Depressed mood**
  - **Impaired concentration**
  - **Suicidal ideation ***

Suicide

- Suicide is the 4th leading cause of death in children aged 10-15 years
- Suicide is the 3rd leading cause of death among adolescents and young adults aged 15-25 years

Suicide

- Rates of suicide attempts are 3 times higher in females
- Rates of completed suicides are 5 times higher in males

Major Depression Etiology

- Psychosocial models/life stressors
- Organic etiologies/infections, medications, endocrine disorders, neurological disorders
- Lifetime risk of depression in children of depressed parents is 15-45%

Major Depression Outcome

- 2/3 recover within one year
- Recurrence rate: 70% in 5 years
- Pre-pubertal: 30% become Bipolar
- Adolescents: 20% become Bipolar
- Increased risk for depression as adults

Major Depression Treatment

- Cognitive Therapy
- Interpersonal therapy
- Group therapy
- Family therapy

Major Depression Treatment

- Medications are reserved for moderate to severe depression
- Weigh risks and benefits of medications and monitor for suicidality (q wk x 4, then q 2 wks x 4, then q 3 mos if stable
- Escitalopram is approved for treatment of depression in 12-17 year-olds
- Fluoxetine is the only FDA-approved antidepressant for child and adolescent depression, down to age 8

Autism Spectrum Disorder

Prevalence

- CDC- 1 in 68 American children have ASD
- Remarkable increase is noted- possibly due to ASD being understood as a social communication spectrum disorder accounts for identifying milder cases

Autism Spectrum Disorder Diagnosis

- Persistent deficits in social communication and social interaction across multiple contexts
  - Deficit in emotional reciprocity, ranging- abnormal social approach and failure of normal back and forth conversation
  - Deficit in non-verbal communicative behavior – abnormal eye contact and body language, deficits in understanding and use of gestures, lack of facial expression
  - Deficits in developing, maintaining, understanding relationships- adjust behavior to suit social contexts, difficulty sharing in imaginative play or making friends

Autism Spectrum Disorder Diagnosis

- Restricted, repetitive patterns of behavior, interest, or activities
  - Stereotypical movements- lining up toys, echolalia, motor stereotypies
  - Insistence on routines, rituals- extreme distress at small changes, difficulty with transitions, rigid thinking, greeting rituals, same route/same food daily
  - Fixed interests abnormal in intensity-preoccupation and strong attachment
  - Hyper or hyporeactivity to sensory input- sounds, textures, excessive smelling or touching of objects

Autism Spectrum Disorder Diagnosis

- Symptoms must be present in the early developmental period
- Symptoms must cause significant impairment in social, occupational, other areas of functioning
- Not better explained by intellectual developmental disorder or global developmental delay; intellectual disability and ASD co-occur frequently

Austim Spectrum Disorder

- Clinical Charcteristics
  - Social communication symptoms of ASD present from first months of life
  - Two groups of children were studied- 294 high risk (sibling with ASD) and 166 low risk (typical developmental sibling)
  - Children evaluated at ages 6,12,18,24,36 mos- at 36 mos classified into either autistic, broad autistic phenotype, or typical development
  - 6mos to 12 mos -> differences more apparent and broaden over time

Autism Spectrum Disorder

- Eye tracking technology used to study high risk infant siblings of children with autism -> at 2 mos infants later diagnosed as having ASD did not differ from those who were not given an ASD diagnosis
- 2 mos to 6 mos -> former group showed abrupt decline in attention to eyes as did the latter group, with decline continuing precipitously
- 40% have intellectual deficiency with IQ less than 70
- All have deficit in pragmatic communication (social), vocabulary and grammar, gross and fine motor

Autism Spectrum Disorder

- Scales
  - ADOS-G- used in children/adults consisting of age appropriate presses where examiner uses their behavior to elicit social responses from the subject
  - ADOS-2- for toddlers under the age of 3 years, administered for one hour or less
  - CARS2-combines elements of structured interview with direct observation

Autism Spectrum Disorder

- Treatment
  - Applied Behavioral Analysis- oldest therapy, developed at UCLA, relies on principles of operant conditioning where a stimulus is presented to evoke a specific response; reinforcers (candy or desired objects) provided as a reward
  - 35 hours of a week of ABA therapy recommended
  - TEACCH- statewide program in NC focuses on the culture of autism and aims to reward childrens' understanding of structure of events, communication of visual information, and acquisition of meaningful knowledge

Autism Spectrum Disorder

- Pharmacological Treatment
  - No medication ameliorates social, language, or cognitive deficits
  - Placebo controlled studies show SSRIs and atypical antipsychotics reduce aggression, temper outbursts, self injurious behavior
  - 8 week double blind placebo controlled trial showed Risperdone resulted in greater reductions in scores of Children's Yale Brown OCD scale and Maladaptive Behavior domain of the Vineland Adadptive Behavior Scales- maintained for 6 mos
  - Risperdone reduced stereotypical patterns

References

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