Mood Disorders in Children and Adolescents

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History of Child Mental Health

- Until late 1800s
  - Children were mini-adults
- Early 1900s – 1960s
  - Big swing to a developmental model
    - Freud
      - Id, Ego, Superego
    - Piaget
      - Concrete, Formal Operational stages
    - Erickson
      - Series of necessary conflicts
  - Some diagnoses were off limits
    - Depression and anxiety—no superego = no disorder

History of Child Mental Health

- Modern view
  - Mixture of developmental and neuro-chemical approach
  - Adult illnesses in a developing brain
    - Increasing use of adult pharmacotherapy
  - Researched based
    - Many impediments to child brain research
  - Influence of media on belief
    - Fact and fiction

History of Child Mental Health

- Factors that impede development
  - Trauma
    - Physical
    - Emotional
  - Environment
    - Rich v. impoverished
    - Passive v. active
  - Exposure
    - Chemicals
    - Stimuli

Increase in Childhood Disorders

- Far more cases of every childhood disorder are made than ever before
- Why?
  - More illness is found and diagnosed
    - Education
      - Health care workers
      - Public
    - Scientific advances
      - Depression
      - Autism
      - Bipolar

Increase in Childhood Disorders

- Why?
  - Availability of Patient-Friendly Treatments
    - Anti-depressants
      - » SSRIs
    - ADHD meds
      - » Long acting
    - Anti-psychotics
      - » Lower incidence of Tardive Dyskinesia
      - » Weigh gain (less with newer agents)

Increase in Childhood Disorders

- Why?
  - More children are ill
    - Chemical exposures?
      - Alcohol?
      - “Toxins”?
    - Decreasing parenting skills
    - Television
      - Excessive use linked to ADHD
    - Internet
      - Excessive use linked to depression

What is Depression?

- Not just being sad
- A syndrome of symptoms
  - Depressed mood
  - Sleep disturbance
  - Decreased interest in usual activities (anhedonia)
  - Increased guilty, hopeless or helpless feelings
  - Decreased energy, increased fatigue

What is Depression?

- More cardinal symptoms
  - Decreased ability to concentrate
  - Change in appetite
  - Psychomotor agitation or retardation
  - Suicidal thoughts or plan
    - May be just a preoccupation with death
- Usually “creeps up” on a person
- Must last at least two weeks

What is Depression?

- Other possible symptoms
  - Thoughts of harm to others
  - Irritability – Primary symptom in Children / Adol
  - Psychosis
    - Audio, visual hallucinations
    - Paranoia
  - Perceptual disturbances
  - Catatonia

What is Depression?

- Types
  - Major depressive disorder
    - Five or more of the cardinal symptoms
    - Impairments in functioning socially, academically or vocationally
    - Lasts at least two weeks
  - Dysthymia
    - Chronic low grade depression
    - Lesser impairment, but much longer course
  - Depressed phase of cyclic disorder
    - Bipolar, cyclothymia

Who Gets Depression?

- Approximately 1:5 people
- Can occur at any age
- Women more likely than men
  - By a 2:1 ratio
  - 1:1 ratio prior to puberty
- Greatest risk of suicide
  - Latter middle-aged divorced men who have a serious medical illness and have recently suffered a loss

•Co-Morbidities with Depression

- Anxiety
- ADHD
- ODD / CD
- Substance Abuse
- Learning disabilities
- Family stress
- Non-completion of High School
- Lower SES

Why Treat Depression?

- Suicide
- Loss of job / scholastic performance
  - May be a bigger influence that any other disease
- Can linger for years if untreated
- Quality of life issue
- Effect on children
  - Depressed parents more likely to have children with behavioral disturbances

How to Treat Depression

- Antidepressant Medications
  - Selective Serotonin Reuptake Inhibitors (SSRIs)
    - Six members:
      - Zoloft (sertraline)
      - Lexapro (escitalopram)
      - Celexa (citaolpram)
      - Paxil (paroxitine)
      - Prozac (fluoxetine)
      - Luvox (fluvoxamine)
    - Low side effects: upset stomach, diarrhea, sexual side effects (anorgasmia)

How to Treat Depression

- Antidepressant Medications
  - Non-selective Serotonin Reuptake Inhibitors (NSRIs)
    - Effexor, Cymbalta, Pristiq
      - Serotonin and Norepinephrine
      - Withdrawal syndrome
    - Wellbutrin
      - Dopamine, Norepinephrine, Serotonin
      - Not with seizure disorder
      - Also, for attention, focus
      - Less sexual dysfunction

How to Treat Depression

- Antidepressant Medications
  - NSRIs
    - Remeron
      - Serotonin, Norepinephrine
      - Sedation, but less sexual side effects, increased appetite
    - Trazodone
      - Serotonin
      - Not a great antidepressant, now used mostly for sleep

How to Treat Depression

- Antidepressant Medications
  - Tricyclic Antidepressants
    - Nortriptyline, Imipramine, Desipramine, Amitriptyline
    - Older
    - More side effects (generally): dry mouth, constipation, heart conduction slowing (check EKGs), sedation, sexual dysfunction
    - Much more lethal in overdose
    - NEVER proven to be effective in people under the age of 18
  - MAO-Is
    - Parnate, Nardill
    - Need to follow strict diet: no aged foods (cheese, meats), no fermented foods (wine, alcohol), or can cause life threatening elevations in blood pressure

How to Treat Depression

- Psychotherapy
  - Cognitive-Behavioral Therapy
    - Aimed at challenging the way a person thinks
    - Designed to restructure a more healthy life
  - Interpersonal
    - Looks at relationships as areas of dysfunction
  - Psychodynamic
    - “Freudian”, long term therapy
    - More of personality shaping
    - Expensive

What is Bipolar Disorder?

- History
  - Aristotle 300 BC
  - Jules Falret, 1854
  - Karl Kahlbaum, 1882, “Cyclothymia”
  - Emil Kraepelin, 1899, near-modern criteria
  - Famous persons with Bipolar-like illness
    - Van Gough
    - Carrie Fisher
    - Jim Carrey
    - Patty Duke

What is Bipolar Disorder?

- Criteria according to DSM IV for Manic Episode
  - Elevated mood and “DIGS FAST”
    - Distractibility
    - Irritability
    - Grandiosity
    - Sleep
    - Flight of ideas (racing thoughts)
    - Activity (hyper)
    - Spending, sex and stupid stuff
    - “Talkitivity” (hyper)

What is Bipolar Disorder?

- Additional criteria
  - Must last 1 week
  - Must be a distinct change from baseline
  - Must be impairing
  - Must NOT be due to a medical condition (hyperthyroid, HIV) or drug use/abuse (steroids, stimulants, ecstasy)
  - Do NOT need a history of depressive episode
    - Though most do have them

What is Bipolar Disorder?

- Problems with diagnosis
  - Bipolar symptoms that mimic ADHD
    - Speech
    - Impulsivity
    - Distractibility
  - Bipolar symptoms that are NOT in common in ADHD
    - Sustained mood shifts
    - Psychosis
    - Severe sleep disturbances
    - “Affective Storms”

Who has Bipolar Disorder?

- 1-3 % of the General population
  - Far less than depression
  - About the same as panic disorder
  - More than diabetes
- Men and women equally affected
  - All other mood disorder women are more affected than men by 2:1

Why treat Bipolar Disorder?

- Dangers of manic episodes
  - Social upheaval
    - Spending
    - Promiscuity
    - General irresponsibility
    - Substance abuse
    - Lack of judgment
  - Exhaustion
    - Persons have died from this condition!

How to treat Bipolar Disorder?

- Therapy
  - Insight
    - Accept the idea that one has an illness
  - Manage stress and anxiety
  - Promote healthy lifestyle
    - Regular sleep is KEY
  - Deal with and challenge manic and depressed thinking
  - Promote understanding with family

How to treat Bipolar Disorder?

- Lithium
  - The gold standard
  - Naturally occurring salt
    - Used to be available in soda like beverage
  - Effective for both mania and depression
  - Side effects:
    - Weight gain, skin conditions, tremor

How to treat Bipolar Illness?

- Lithium
  - Blood monitoring
    - 12 hour level
      - Should be below 1.2
    - Thyroid, kidney functions
    - If toxic, the person can look drunk, with slurred speech, unstable gait, and fluctuations in consciousness
    - Toxicity is a MEDICAL EMERGENCY
      - Too high a level is fatal!
      - Care in hot weather (dehydration)
      - Avoid IBUPROFEN

How to treat Bipolar Illness?

- Depakote (Valproic Acid)
  - One of the seizure medications (anti-convulsant or anti-epileptic)
  - Stabilizes brain neuro-chemistry
  - Side effects:
    - Weight gain, sedation, hair loss, tremor, polycystic ovarian disease?

How to treat Bipolar Illness?

- Depakote (Valproic Acid)
  - Blood monitoring
    - 12 hour level
      - Should be below 125
    - Less concern with toxicity than with Lithium
    - Liver, perhaps testosterone (for adolescent girls)

How to treat Bipolar Illness?

- Tegretol (Carbamazepine)
  - Another seizure medication
  - Also stabilizes brain chemistry
  - Side effects:
    - Sedation, blurred vision, rash
  - Blood monitoring
    - 12 hour level
      - Between 5-10
    - Less concern with toxicity
    - Liver function, complete blood count

How to treat Bipolar Illness?

- Lamictal (Lamotrigine)
  - An anti-epileptic
    - Recently indicated for treatment of the depressed phase of bipolar illness
  - Side effects:
    - Stevens-Johnson syndrome (severe skin rash), sedation
    - Must start slow and go up slow to avoid rash
    - If person misses more than one day of meds, MUST start over at lowest dose and work up again

How to treat Bipolar Illness?

- Anti-psychotics
  - Haldol, Risperdal, Seroquel, Geodon, Abilify, et al
  - “Major tranquillizer”
  - Works on Dopamine system to block transmission
  - Side effects:
    - Sedation, weight gain, movement disorders, diabetes?
  - Monitor Fasting Blood Glucose, Lipids, Weight
    - Watch for gynecomastia, esp. with Risperdal

How to treat Bipolar Illness?

- Anti-epileptics that have NOT been proven to work in Bipolar
  - Topamax
    - Side effects: memory loss, cognitive dysfunction, weight loss, sedation
  - Gabitril
    - Side effects: sedation
  - Trileptal
    - Very much like Tegretol, except fewer side effects and no blood monitoring is necessary
    - Side effects: sedation
  - Neurontin
    - Side effects: sedation

How to treat Bipolar Illness?

- Things to avoid
  - Non-compliance!
  - Anti-depressants
    - Used with care in depressed
    - Can trigger mania
  - Lack of sleep
  - Disruption of routine
  - Illegal psychoactive drugs

Disruptive Mood Dysregulation Disorder (DMDD)

- DSM-V Diagnosis
- A. The disorder is characterized by severe recurrent *temper outbursts* in response to common stressors.
  - 1. The temper outbursts are manifest verbally and/or behaviorally, such as in the form of verbal rages, or physical aggression towards people or property.
  - 2. The reaction is grossly out of proportion in intensity or duration to the situation or provocation.
  - 3. The responses are inconsistent with developmental level.
- B. *Frequency*: The temper outbursts occur, on average, three or more times per week.

Disruptive Mood Dysregulation Disorder (DMDD)

- C. *Mood between temper outbursts:*
  - 1. Nearly every day, the mood between temper outbursts is persistently negative (irritable, angry, and/or sad).
  - 2. The negative mood is observable by others (e.g., parents, teachers, peers).
- D. *Duration*: Criteria A-C have been present for at least 12 months. Throughout that time, the person has never been without the symptoms of Criteria A-C for more than 3 months at a time.
- E. The temper outbursts and/or negative mood are present in at least two settings (at home, at school, or with peers) and must be severe in at least in one setting.
- F. Chronological age is at least 6 years (or equivalent developmental level).
- G. The onset is before age 10 years.

Disruptive Mood Dysregulation Disorder (DMDD)

- H. In the past year, there has never been a distinct period lasting more than one day during which abnormally elevated or expansive mood was present most of the day for most days, and the abnormally elevated or expansive mood was accompanied by the onset, or worsening, of three of the "B" criteria of mania (i.e., grandiosity or inflated self esteem, decreased need for sleep, pressured speech, flight of ideas, distractibility, increase in goal directed activity, or excessive involvement in activities with a high potential for painful consequences; see pp. XX). Abnormally elevated mood should be differentiated from developmentally appropriate mood elevation, such as occurs in the context of a highly positive event or its anticipation.
- I. The behaviors do not occur exclusively during the course of a Psychotic or Mood Disorder (e.g., Major Depressive Disorder, Dysthymic Disorder, Bipolar Disorder) and are not better accounted for by another mental disorder (e.g., Pervasive Developmental Disorder, post-traumatic stress disorder, separation anxiety disorder). (Note: This diagnosis can co-exist with Oppositional Defiant Disorder, ADHD, Conduct Disorder, and Substance Use Disorders.) The symptoms are not due to the direct physiological effects of a drug of abuse, or to a general medical or neurological condition.