Mental Illness in Children and Adolescents

By Christopher Okiishi, MD
Child and Adolescent Psychiatrist

Illustrative Case Vignettes

• Seven year old boy, first grade, struggles with completing assignments, keeping hands to himself, arguing with teachers, peer relationships and occasional “wetting accidents.”

Illustrative Case Vignettes

• Thirteen year old girl, eight grade, failing all classes by gym and art, quiet, loner, few if any vocal contributions to class, rare work completion, varying work quality.
Illustrative Case Vignettes

• Seventeen year old High School senior, chronic behavioral problem, aggressive, multiple suspensions for talking/blurring in class, "just can't keep quiet", mocking teachers, lies to get out of trouble, teased by peers, work quality inconsistent

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

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

Development

- Major milestones
  - 0 – 6
    - Huge neurological development
    - Connection and pruning of neurons
  - 7-11
    - Ongoing but slower development
    - Myelination of neural connections
      - Speed of transmission
      - Accuracy / decrease of cross-wiring
      - Physical, cognitive, and emotional implications

Development

- Developmental concepts
  - Piaget
    - Conservation of mass
    - Concrete operations
      - logical thought begins—not very abstract yet
  - Freud
    - Superego
  - Erikson
    - Trust v. shame and guilt
    - Industry v. inferiority
Development

• Adolescence
  – Early (11-14 years)
    • Menstruation (11-12)
    • First ejaculation (13-14)
    • Task–find a personality! Want to be accepted.
    • Sexual maturation
    • Ongoing myelination

Development

• Adolescence
  – Middle (14-17 years)
    • Gender roles, body image and popularity
    • Key goal: to be perceived as competent
      – Highly reactive to direct criticism – needs shift in parenting
    • Peers have more influence than any other source
      – Experimentation with defiance / new personalities
    • Cause and effect NOT FULLY FORMED
    • Risk-taking behavior common
      – 90% of Iowa High School Seniors have tried Alcohol
      – 60% have tried Marijuana
      – Less than 5% have developed an addiction

Development

• Late adolescence (17 - 25)
  – Development of morals, abstract thought
    • Not everyone gets there!
  – Myelination ends
  – Cause and effect development achieved
  – Strong desire to be powerful, competent, in control, “right”
Childhood Disorders

• Age 0 – 3
  – Cognitive Disorders
  – Autism and Pervasive Developmental Disorders
    • Deficiencies in social and language skills
  – Reactive Attachment Disorder

Childhood Disorders

Age 3 – 10

Disruptive Behavior Disorders
  Attention Deficit Hyperactivity Disorder
  Oppositional Defiant Disorder
  Early onset Conduct Disorder

Learning Disorders
  Reading, Expressive/Receptive Language, Mathematics
  4.5% of children diagnosed with learning disability
  Rates much higher in juvenile justice population (35%)

Mood and Anxiety Disorders
  Depression, Bipolar, Generalized Anxiety, Panic, OCD

Tic Disorders

Elimination disorders

Childhood Disorders

Age 10 – 18

Disruptive Behavior Disorders
  Late onset Conduct Disorder

Mood and Anxiety Disorders

Emerging Personality Disorders
  Developmentally appropriate to have some personality extremes

Substance Abuse Disorders

Post-Traumatic Stress Disorders
  1 in 4 girls and 1 in 8 boys are sexually abused by this time
Childhood Disorders

• Age 18 – 25
  – Schizophrenia
    • Typical onset
    • Men earlier than women
    • Marked by frank delusions and hallucinations
    • Fewer than 1% of population

Differences from adult disorders

Children exist in a family unit
More likely to be affected by such than adults
More likely to have irritability as a symptom
More likely not to be recognized by individual
May be differently responsive to treatment
  Anti-depressants
  Anti-anxiety meds
  Therapy
May be sub-syndromal for years prior to full onset
  Mood and psychotic disorders in particular

Mental Illness in Children

• Diagnostic strategies similar to those in adults—e.g. the diagnostic interview
• Children have less life experience—more difficulty recognizing/reporting symptoms
• Parents/teachers are invaluable tools to provide collateral information—this information is thusly colored by individual perception
Common Childhood Diagnoses

- Mood Disorders
- Anxiety Disorders
- Disruptive Behavior Disorders
  - Attention Deficit Hyperactivity Disorder
  - Oppositional Defiant Disorder
  - Conduct Disorder
- Tic Disorders

Mood Disorders

- Depression
- Bipolar
- Adjustment disorders
- Grief

Mood Disorders

- How diagnosed?
  - Clinical interview with child and caregivers
  - Information from teachers
  - Observation of child
  - Occasionally, additional testing (IQ, learning)
  - NO LAB or BLOOD testing available
  - No brain scan routinely necessary
Mood Disorders

• Depression
  – Most common form of mental illness
  – 1 in 5 people will have a clinical depression in their lifetimes
  – Can occur at any age
  – Children under stress at risk
  – Can be genetic
  – Can occur with:
    • ADHD
    • Conduct Disorder
    • Anxiety Disorders
    • Learning Disabilities

Mood Disorders

• Symptoms
  – Depressed or just irritable mood
  – Sleep disturbance
  – Appetite change
  – Lack in interest in usually fun activities
  – Low energy
  – Poor concentration
  – Feelings of hopelessness, helplessness
  – Feelings of lethargy or agitation
  – Suicidal thoughts

Mood Disorders -- Depression

• If symptoms go on for more than 2 weeks, seek mental health care
• This is likely the MOST overlooked disorder in children and adults
• Highly treatable
Mood Disorders -- Depression

- Medical Treatment:
  - Antidepressants
    - Serotonin selective meds
      - Zoloft, Prozac, Celexa, Lexapro, Luvox, Paxil
      - Side effects: upset stomach, diarrhea, can be “activating”
    - Serotonin non-selective
      - Wellbutrin, Effexor, Remeron, others
      - Side effects: vary by drug
    - Tricyclic anti-depressants
      - Imipramine, Nortriptiline, Amitriptyline, others
      - Side effects: dry mouth, constipation, heart problems

Mood Disorders -- Depression

- All medicines take 2-6 weeks to start working
- May not reach full effect for 12 weeks
- Must be taken every day
- Usually, doses start low, but may need to increase to adult size doses
  - Kids have really good livers

Mood Disorders

- Bi-polar disorder
  - Really controversial diagnosis
  - Jury is out on what this really means just now
  - Does NOT mean just a kid with mood swings
  - Moods shift from happy to sad over a period of time, NOT from minute to minute
Mood Disorders -- Bipolar

• Symptoms:
  – Up mood or irritability
  – Distractible
  – Hyperactive
  – Dangerous or risky behavior
  – Sleeping less but not tired
  – Inflated sense of self-esteem (super powers)
  – Rapid, uninterruptible speech
  – Can get dangerous or violent

Mood Disorders -- Bipolar

• Treatment:
  – Lithium
    • Side effects: upset stomach, thyroid/kidney problems, tremor
    • Need to check blood levels
  – Anti-seizure meds
    • Depakote, Tegretol, Lamictal, (Gabatril, Topamax and others)
      – Side effects vary
      – Depakote and Tegretol need levels checked

Mood Disorders

• Adjustment Disorder and Grief
  – A person can have a full blown depressive episode in response to a traumatic event (separation from family, death of a loved one)
  – Usually, this resolves on its own within two weeks
  – If not, seek mental health treatment
Anxiety Disorders

- Generalized Anxiety Disorder
- Panic Disorder
- Obsessive Compulsive Disorder
- Post-Traumatic Stress Disorder
- Separation Anxiety Disorder

Anxiety Disorders

- How diagnosed?
  - Clinical interview with child and caregivers
  - Information from teachers
  - Observation of child
  - Occasionally, additional testing (IQ, learning)
  - NO LAB or BLOOD testing available

Anxiety Disorders

- Generalized Anxiety Disorder (GAD)
  - Fairly common
  - May be similar illness to depression
  - Often goes untreated
  - May be associated with:
    - Learning disorders
    - Conduct disorder
    - Oppositional defiant disorder
Anxiety Disorders -- GAD

- Symptoms:
  - Ongoing feeling that something bad is going to happen
  - Irritability
  - Sleeplessness
  - Agitation
  - Excessive worry
  - Changes in appetite
  - Complaints of stomach and head aches, body pains
  - Loss of interest in usual activities

Anxiety Disorders - GAD

- Treatment:
  - Same as depression!
  - Seems to be caused by the same chemicals

Anxiety Disorders

- Panic Disorder
  - Characterized by Panic Attacks
    - Sudden feeling of doom
    - Heart racing, shortness of breath
    - Feel "like your gonna die!"
    - Subsides in less than ½ hour, but can be quite shaken up for a while
    - Tend to avoid places or things that make anxiety worse—school, grocery store
Anxiety Disorders – Panic Disorder

• Treatment:
  – Anti-depressants
    • Takes some time for them to kick in
  – Benzodiazepines
    • Valium, Xanax, Ativan, many others
      – Side effects: Sleepiness, Silliness, Addiction!

Anxiety Disorders -- OCD

• Obsessive Compulsive Disorder
  – Obsession
    • Persistent, unwanted, intrusive thought
    • Makes you feel uncomfortable
    • Try to get rid of it, but can’t
  – Compulsion
    • Ritual behavior that you do over and over
      – Counting, washing, cleaning
    • Try to get rid of worry
    • Can’t NOT do the action, or something bad will happen

Anxiety Disorders -- OCD

• Symptoms will get better at some times, worse at others
• Can be VERY time consuming
• Can be VERY frustrating
• Some people try to keep them hidden because they KNOW they are kinda weird, but just cannot stop
Anxiety Disorders -- OCD

- Treatment
  - The anti-depressants again!
    - Especially the Serotonin ones
    - Also, Anafranil, a tricyclic, has particular promise
  - Can be hard to treat and take a long time (months) to be effective
  - Talk therapy at the same time is a MUST

Anxiety Disorders -- PTSD

- Post Traumatic Stress Disorder
  - Brought on by an experience or series of events in which a person feels extreme fear or near loss of life
  - Associated with:
    - Depression
    - Other anxiety disorders

Anxiety Disorders -- PTSD

- Symptoms
  - Flashbacks
  - Hyper-arousal (always on the lookout)
  - Easy startle
  - Trouble sleeping (anxiety worse at night)
  - Avoidance of events or circumstances like the trauma
Anxiety Disorders -- PTSD

- Treatment:
  - The Anti-depressants again!
  - Sleep aids
    - Clonidine, Ambien, Trazodone, Sonata, others
  - In severe cases, anti-psychotics are used
    - Usually to help calm at night
  - Like in OCD, talk therapy is a MUST

Separation Anxiety Disorder

- Severe worry about being separated from loved ones
  - School refusal, panic symptoms
  - 4% of kids
  - Some level of Separation Anxiety is appropriate at times, but this is excessive

Separation Anxiety Disorder

- Treatment
  - Anti-depressants, again
  - Benzodiazepines
  - SEND BACK TO SCHOOL ASAP
    - Sounds cruel, but it works
Disruptive Behavior Disorders

- How diagnosed?
  - Clinical interview with child and care givers
  - Information from teachers
  - Observation of child
  - Occasionally, additional testing (IQ, learning)
  - NO LAB or BLOOD testing available

ADHD

- Common: 3-5 % of kids
  - More common (4-9 times) in boys than girls
    - Inattentive subtype may be more common in girls
- May have genetic link
- Common problems that go along:
  - Oppositional Defiant and Conduct Disorder
  - Tourette’s Disorder
  - Mood disorders
  - Substance abuse

ADHD

- Predisposing factors
  - Abuse
  - Low birth weight
  - Toxins (Lead)
  - Mental retardation
  - Intra-uterine drug exposure
ADHD

• Three subtypes:
  – Inattentive (under-diagnosed, esp. in girls)
  – Hyperactive-Impulsive
  – Combined
• Impairments must exist in more than one setting
• Must start before age 7
• Features often persist into adulthood

ADHD -- Treatment

• Stimulants
  – Ritalin (Methylphenidate)
    • Concerta, Metadate, Focalin (sorta)
  – Dexedrine (Dextroamphetamine)
  – Adderall (Dextroamphetamine salts)

ADHD -- Treatment

• Side effects of stimulants
  – Weight loss
  – Insomnia
  – Stomach ache
  – Irritability, mood problems
  – The Three S’s: Starving, Sleepless, and Stomach
ADHD -- Treatment

- Rebound
  - Can occur when stimulants wear off
  - Usually in the evening
    • Irritability, hyperactivity, return of appetite
    • Can be managed with dosing changes usually

ADHD -- Treatment

- Certain Blood Pressure Meds
  - Catapres (Clonidine)
  - Tenex (Guanfacine)

- Side effects
  - Sedation (Clonidine more so than Tenex)
  - Little evidence for serious blood pressure problems

ADHD -- Treatment

- Tricyclic antidepressants
  - Imipramine probably most used
  - Help with sleep as well as ADHD
  - May be used in combination with others

- Side effects of Tricyclics
  - Constipation
  - Dry mouth
  - Some conduction problems in heart (need to check EKGs from time to time)
ADHD -- Treatment

- Other meds
  - Wellbutrin
    - Especially in depressed ADHD kids
    - Watch for increasing irritability
    - Can’t use if kids have had seizures
  - Strattera
    - New
    - May help without being a stimulant (works more like a tricyclic antidepressant)
    - Stomach upset is biggest side effect

ADHD Treatment

- Need to give meds every day, usually
  - Stimulants work ONLY on the day you give them
  - Others may take some time to be fully effective
  - Shouldn’t suddenly stop ANY medicine unless a doctor says so

Conduct Disorder

- Disruption in four areas:
  - Aggression to people/animals
  - Deceitfulness or theft
  - Destruction of property (e.g. setting fires)
  - Serious rule violations (truancy, running away)
- Onset at ANY TIME in life cycle
  - Usually before age 16
  - Boys > Girls, Boys more violent than girls
Conduct Disorder

- Two subtypes
  - Childhood onset (before 10)
    - Worse prognosis
    - Far more common in boys
  - Adolescent onset
    - More likely short lived
    - Less severe
    - May be due to circumstances (e.g. divorce)
    - Less gender gap, but boys STILL more prevalent

Conduct Disorder

- More common than ADHD
  - 6-16 % for boys, 2-9 % for girls
- Often occurs along with:
  - Learning Disorders
  - Mood Disorders
  - Anxiety Disorders
  - Substance abuse
  - ADHD -- bad combination!

Conduct Disorder

- Predisposing factors:
  - Genetic
  - Abuse (especially neglect)
  - Inconsistent parenting
  - Large family size
  - Difficult infant temperament
  - Conduct disordered peer group
Conduct Disorder -- Treatment

• Treat other disorders too (need to look carefully)
  – In particular mood, anxiety and ADHD
• Counseling
  – Also for family to improve parenting skills
• Residential Care
  – Boot camp?

Conduct Disorder

• Medicines
  – Aimed at reducing aggression
    • Blood pressure meds
      – Tenex, Clonidine, Propranolol
    • Anti-seizure meds
      – Depakote, Tegretol, Topamax, many others
    • Anti-depressants
      – Many different kinds
    • Anti-psychotics
      – Risperdal, Seroquel, Zyprexa, many others

Conduct Disorder

– Side effects of anti-psychotics
  • Sedation
  • Appetite increases
  • Dystonia
    – Like a bad muscle cramp
    – Treat with benadryl
  • Tardive Dyskinesia
    – Movement disorder
    – Unlikely with newer meds
    – Can be permanent
Oppositional Defiant Disorder

- “Terrible Twos, but the kid is now NINE!”
- The name says it all
  - Persistent pattern of opposition and defiance to authority, rules, and external means of behavioral control
  - May begin in one location (home) then tends to generalize

Oppositional Defiant Disorder

- Treatment
  - Parent skill training
    - Conceptualizing the disorder as a “a mismatch in parent-child communication style”
  - Treat other illness
    - Especially ADHD
  - Occasionally, in severely aggressive ODD
    - Treated like Conduct Disorder aggression

Tic Disorders

- Chronic Motor or Vocal Tic Disorder
  - More than one year
- Transient Tic Disorder
  - Less than one year (more than four weeks)
- Tourette’s Disorder
  - Both motor and vocal for more than a year
- Tic Disorder NOS
  - Less than four weeks
Tic Disorders

- Two varieties of tics
  - Motor
  - Vocal
- May be transient or chronic
- Tourette’s Disorder
  - Both Motor and Vocal Tics (need NOT be at the same time)
  - Duration of more than one year
  - Onset earlier than 18 yo
  - Less than 10 % with coprolalia

Tic Disorders

- Prevalence: 4-5 / 10,000
  - Males > Females (1.5 - 3 times as great)
- Autosomal dominant pattern of inheritance
  - 99 % penetrance in males, 70 % penetrance in females (for parents with Tourette’s)
  - Does NOT breed true to type
    - eg. Chronic Motor Tic dad may have Tourette’s Disorder kid
  - May also express self as OCD or ADHD
  - Non-genetic form associated with big time brain pathology
    - Pervasive Developmental d/o, Seizure d/o

Tic Disorders

- Treatment
  - Alpha-2 Agonists
  - Neuroleptics
  - Waxing and waning course of illness
- May need to treat associated symptoms as well
  - ADHD, OCD
Tic Disorders

• Stimulant meds
  – May bring out tics, but NOT contraindicated anymore
  – Balance benefit and impairment
    • Polypharmacy is good!

Symptoms in the Classroom

• Fidgeting
• Out of Seat
• Work incompletion
• Blurting
• Talking
• Non-compliance
• Defiance
• Aggression
• Mood Swings/Tearfulness
• Poor social interaction

Diagnostic Boundaries

• ADHD v. Depression
• ADHD v. Anxiety
• ADHD v. Bipolar
• ADHD v. Tic Disorder
Diagnostic Boundaries

• Depression v. Bipolar
• Depression v. Anxiety
• Depression v. Conduct Disorder/ODD
• Depression v. Medication Side Effect

Diagnostic Boundaries

• Anxiety v. Conduct Disorder/ODD
• Anxiety v. Bipolar
• Other diagnostic clues/quandries

What Can We Do?

• Observe
• Gather data
• Be aware of mental health related underpinnings of disorders
• Listen
• Encourage/facilitate intervention
• Communicate concerns and successes
Illustrative Case Vignettes

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