Bridging the Gap: Pediatrics and Psychiatry

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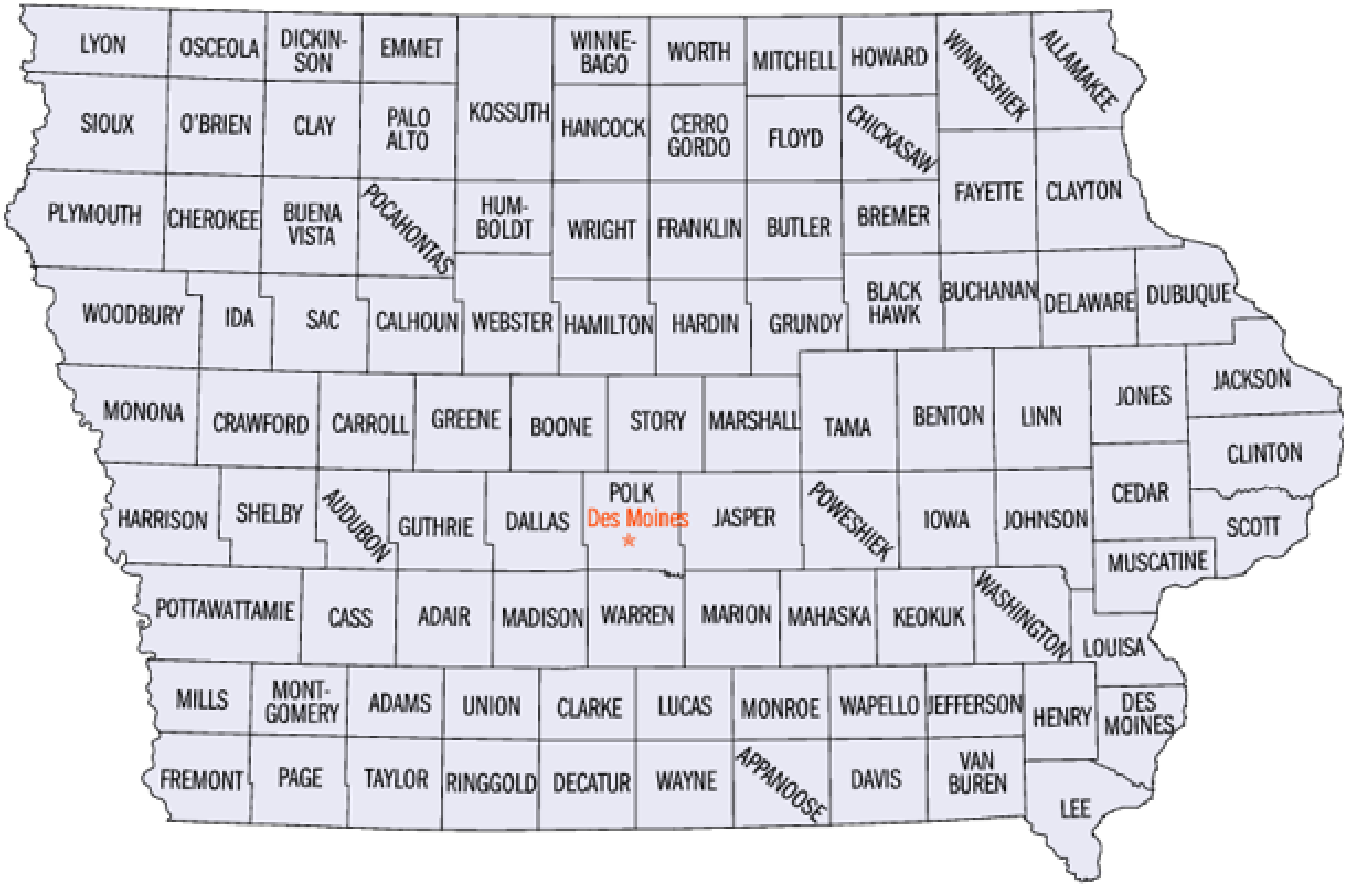
9/23/2011


DEATH BY POWERPOINT
PunditKitchen.com

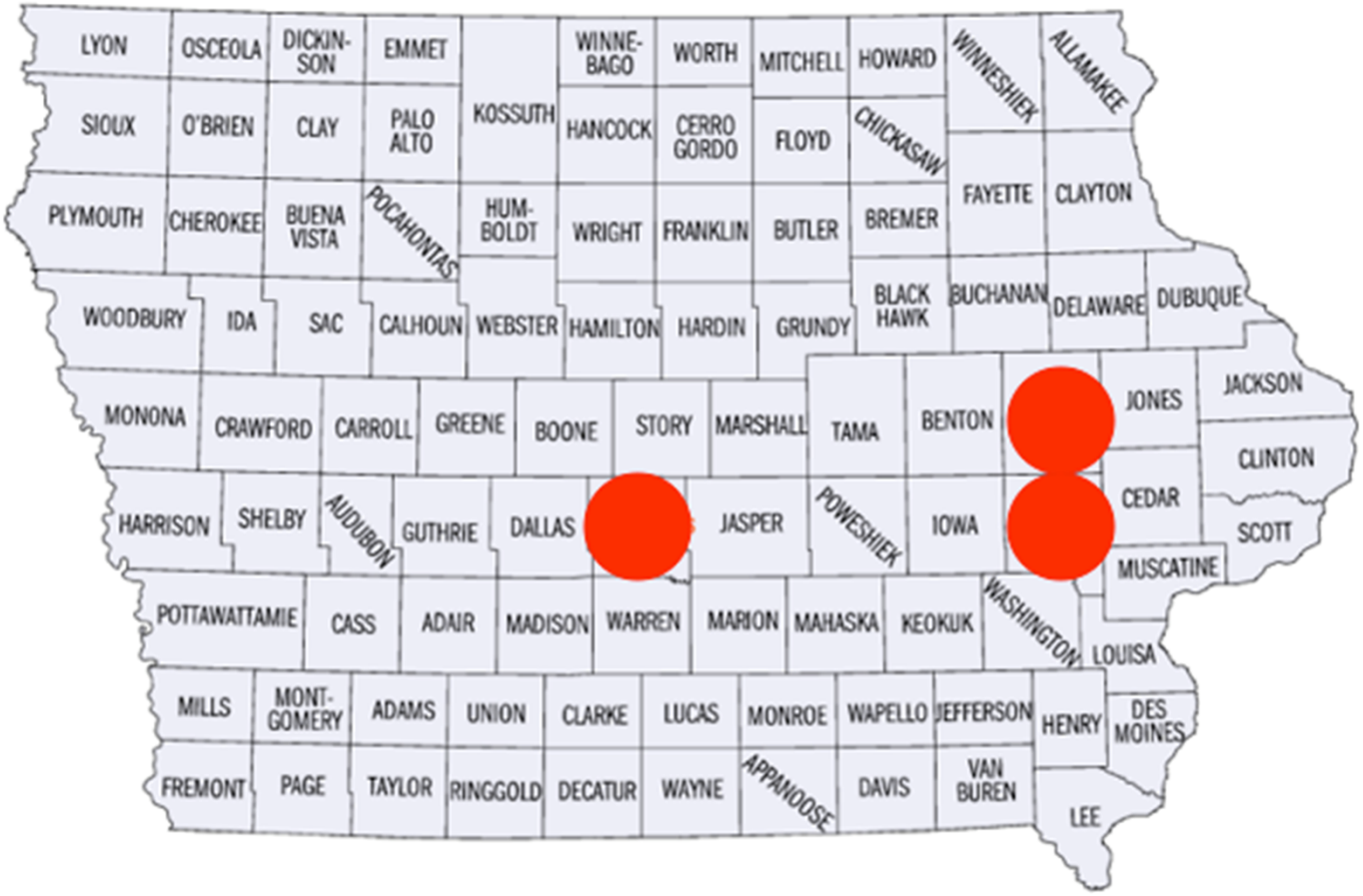
Mental Health Care in Primary Care

- Rates of Mental Illness in Children and Adolescents
  - 14-20% of kids and adolescents experience significant mental health disorders
  - ~2% are seen by mental health specialist
  - ~75% are seen in primary care setting

Mental Health Care in Iowa



Mental Health Care in Iowa



How do we solve this?

What to do until I can get my patient in with a psychiatrist

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Problems I’m asked about routinely

- Attention-Deficit/Hyperactivity Disorder
- Depression
- Anxiety
- Disruptive Behavior Disorders
- Autism Spectrum Disorders (See Dr. Mraz next!)

Attention Deficit/ Hyperactivity Disorder

What do we know about ADHD?

- It’s common
  - 6-8% of kids
- It’s largely biological
  - 76% heritability
- It’s frustrating
  - For parents, teachers, kids, and providers

The Criteria

>6 Inattentive Sx x6mos

- Makes careless mistakes
- Has difficulty sustaining attn
- Doesn't listen
- Doesn't finish tasks
- Has difficulty with organization
- Avoids complex tasks
- Loses things
- Forgets things
- Is easily distracted

>6 Hyperactive/Impulsive Sx x6mos

- Fidgets
- Leaves seat
- Runs/climbs excessively
- Can't play quietly
- "On the go"
- Talks excessively
- Blurts out answers
- Interrupts
- Can't wait turn

- Some sx must be present <7yo
- Impairment must be present in at least 2 settings
- Sx are significantly impairing to social, academic, or occupational functioning

What can it look like?

- Can be unduly sensitive to stimuli
- Can be focused on tasks of interest
- Can be explosive and irritable
- Can be aggressive/defiant
- Can be emotionally labile

Hopeful parents

How do we diagnose it?

- Clinical Interview
- Collateral Information from parents, school, etc
- Exam, Labs
- Screening/Rating Scales
  - Vanderbilt
  - Conners

What else do we know about ADHD?

- Medications are first-line treatment
- Efficacy of stimulants
  - 65-75% of patients have response
- MTA

Treatment

MTA - Multimodal Treatment Study of Children with ADHD

- 597 kids (7-9.9yo) at 6 sites with limited exclusion criteria
- Four treatment arms
  - Medication - Psychosocial
  - Combination - Community
- At 14mos, pts on MTA med algorithm (either alone or in combo) had superior response for ADHD Sx
- Pts receiving combo tx had superior response for some non-ADHD Sx
- Kids tolerated meds well

Treatment

MTA (cont)

- 24 mos follow up - observational
  - Combo and MTA Med Algorithm remained superior
  - BUT effect size decreased compared to Therapy and Community Tx
  - Thought to be due to pts starting or stopping meds
- 36 mos follow up - observational
  - No difference between 4 treatment arms
  - Kids still better than baseline
  - Thought to be due to pts starting or stopping meds
  - Also thought that less severe cases no longer needed meds/services and most severe cases were utilizing more meds/services

Where do we run into problems?

- The medicine isn’t working or isn’t working well enough
- The medicine is causing intolerable side effects
- Nothing works

Problem 1: Med improves symptoms, but not fully

- Is the dose appropriate for the kid's wt?
- Methylphenidate meds
  - Start at 0.5mg/kg, titrate to 1.5-2mg/kg/day
  - Side effect - decreased appetite, insomnia, stomachache, headache, irritability, aggression, rebound
- Dextroamphetamine meds
  - Start at 2.5mg/day for kids 3-5yo, 5-10mg/day for older kids, titrate to 0.5-1mg/kg/day (1.5mg/kg/day?)
  - Side effects - similar to Methylphenidate (more frequent??)
- Monitoring - Ht, Wt, BP, Pulse

Problem 2: Mornings are good, but afternoons aren't

- Duration of behavioral effects
  - A PDR myth in ADHD kids?
- Booster doses?
- 24/7 Medications?

Medication	Duration of Behavioral Effect
Ritalin	3-5 hrs
Methylin	3-5 hrs
Focalin	2-5 hrs
Ritalin SR	3-8 hrs
Methylin ER	3-8 hrs
Ritalin LA	6-8 hrs
Focalin XR	10-12
Concerta	8-12 hrs
Metadate CD	6-10 hrs
Dexedrine	3-6 hrs
Adderall	4-8 hrs
Dexedrine Spansule	6-8 hrs
Adderall XR	10-12 hrs
Vyvanse	10-14 hrs

Problem 3: Early mornings and late evenings are bad

- Onset of action
  - Fast, but not that fast
- Earlier dosing?
- 24/7 Medications?

Medication	Onset of Action
Ritalin	20-60 min
Methylin	20-60 min
Focalin	20-60 min
Ritalin SR	60-90 min
Methylin ER	60-90 min
Ritalin LA	30 min – 2 hrs
Focalin XR	30-60 min
Concerta	30 min – 2 hrs
Metadate CD	30 min – 2 hrs
Dexedrine	20-60 min
Adderall	30-60 min
Dexedrine Spansule	60-90 min
Adderall XR	1-2 hrs
Vyvanse	1-2 hrs

Problem 3: Early mornings and late evenings are bad (Cont)

- Alpha-2 Agonists (clonidine, guanfacine)
  - BID dosing
  - Clonidine
    - Start at 0.025-0.05mg/day
    - Titrate by similar doses every 7days
    - Max dose = 0.3mg/day
  - Guanfacine
    - Start at 0.5mg/day
    - Titrate by similar doses every 7 days
    - Max dose = 4mg/day
  - Side effects - Sedation, dizziness, hypotension, headache
  - Must avoid abrupt discontinuation
  - Monitoring - Pulse, BP

Problem 3: Early mornings and late evenings are bad (Cont)

- Atomoxetine
  - 58-64% of patients treated for 6-12 weeks had 25-30% improvement in sx
  - Start at 0.5mg/kg and titrate to 1.2mg/kg
  - Can divide dose to BID
  - Greatest effects at 6 wks
  - Side effects - decreased appetite, sz and long QT with OD, liver damage
  - Monitoring - LFTs

Problem 3: Early mornings and late evenings are bad (Cont)

- Bupropion
  - Limited studies
  - Dosing
    - Start at 37.5mg /day if <25kg, 75mg/day if >25kg
    - Increase by similar dose every 7 days
    - Max dose ~400-450mg (depends on formulation)
  - Side effects - insomnia, decreased appetite, headache, stomachache, irritability, may worsen tics, seizures
  - Contraindicated in pts with eating disorders or seizure history

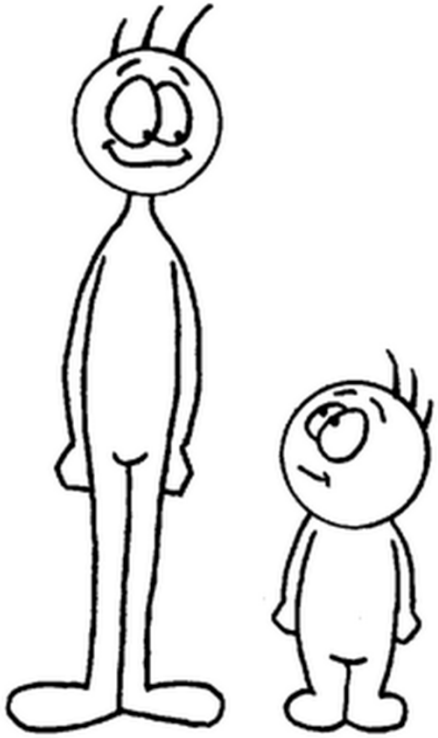
Problem 4: An adequate dose isn’t working at all

- Head to head trials
  - Equal efficacy between stimulants
  - Similar side effect profiles
- Switch med classes?

Problem 5: It's working but the patient's weight is dropping

- Supplementing calories
- Dose-dependant response?
- 24/7 medication alone or as an augmenting agent?

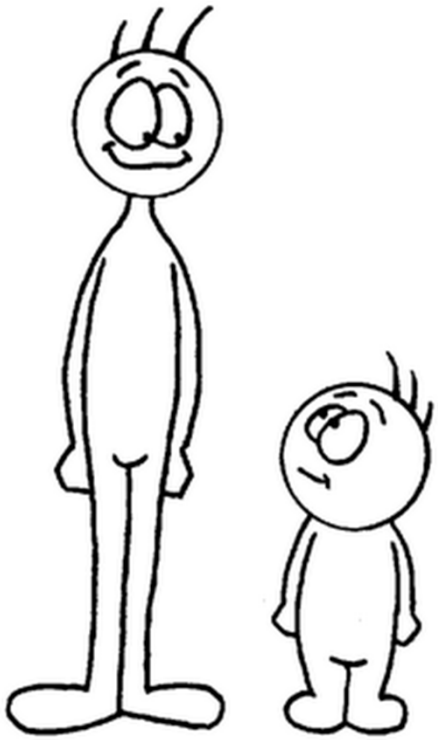
Problem 5: Weight (cont)



Stimulants and Growth

- Studies can seem clear as mud
- Most studies show children on stimulants have decreased *velocity* of growth
- Effect seems to be greater for taller and/or heavier kids
- Children seem to be more effected than adolescents
- Most studies show that the velocity deficits attenuate over time (avg ~ 3 years)
- But deficits increase with the amount of time on meds

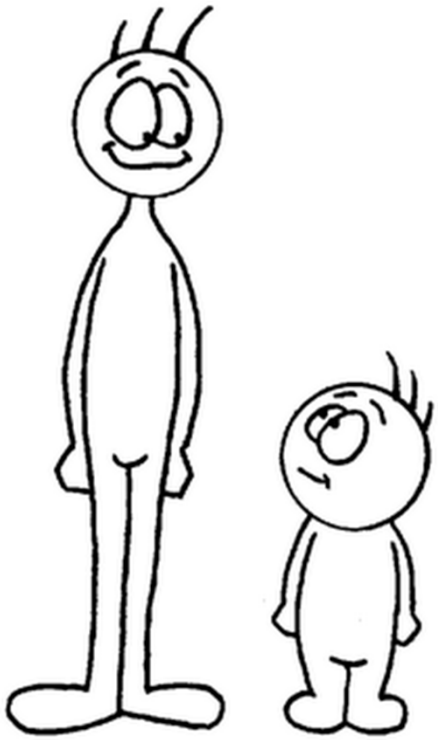
Problem 5: Weight (cont)



Stimulants and Growth (cont)

- No difference is seen between methylphenidate and amphetamine meds
- Deficits seem to be dose-dependent
- Growth seems to rebound once med is discontinued
- Drug holidays may help with growth, but must weigh the pros and cons of having child off of meds
- Some researchers postulate that growth deficits may be part of pathophysiology of ADHD itself?
- No clear data on ultimate effects on adult stature?

Problem 5: Weight (cont)



Stimulants and Growth (cont)

- Strategies:
  - Time dosing and meals so that kid is hungry at mealtime
  - Encourage high-energy, nutritious snacks
  - If necessary, lower dose or switch meds

Bottom Line _____

Monitor Ht and Wt Closely

Problem 6: It's working but the patient can't sleep

- Is it the medicine or a factor of ADHD?
- Sleep aides?
  - Melatonin 3-6mg qhs
  - Diphenhydramine 25-50mg qhs
  - Trazodone 25-50mg qhs (or higher?)
- 24/7 Medications?

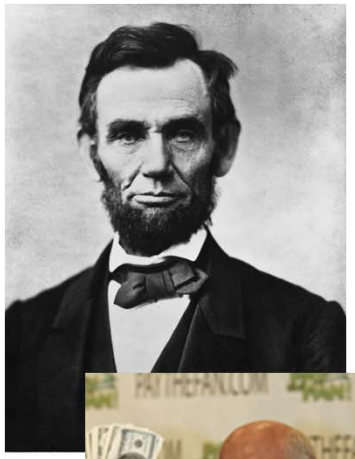
Problem 7(a):Nothing works

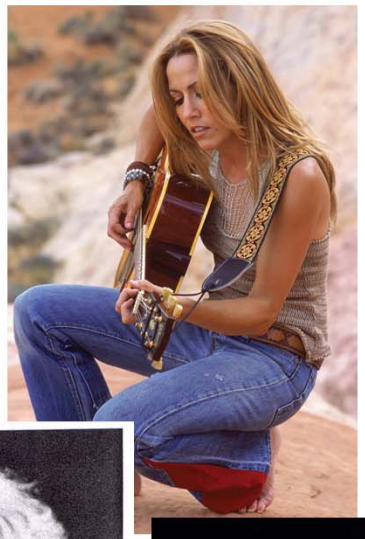
- Is it really ADHD?
- Differential DX
  - Anxiety (Restlessness, distractibility)
  - Mania (Irritability, hyperactivity, distractibility, talkative)
  - ODD/Conduct disorder (Impulsivity, defiance)
  - Learning disorders (Frustration leading to poor attn, behavior)

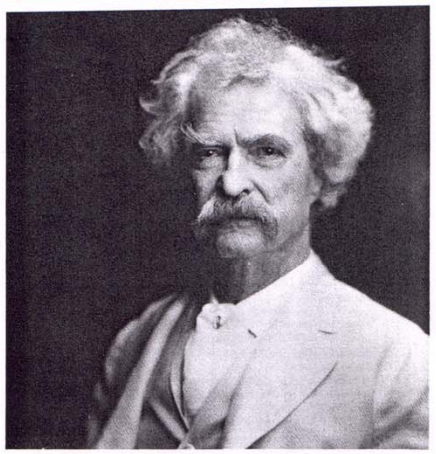
Problem 7(b):Nothing works

- Is the kid taking the medication?
  - ODD?
  - Diversion?

Depressive Disorders





How common is it?

- Depressive disorders increase in frequency with increasing age.
  - Preschoolers = 0.3-0.9% in community
  - Prepubertal school-aged kids = 1-1.9%
    - Boys = Girls
  - Adolescence = 1-6%, up to 14-25%
    - Girls>Boys - 2:1

The Criteria

- >5 Sx for the same 2 wk period that is a change from previous functioning
  - Depressed mood or irritability most of day, nearly every day
  - Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day
  - Decrease or increase in appetite, often with significant unintentional wt loss or gain, kids may not make expected wt gains
  - Insomnia or hypersomnia nearly every day
  - Psychomotor retardation or agitation nearly every day
  - Fatigue or loss of energy nearly every day
  - Feelings of worthlessness or excessive/inappropriate guilt nearly every day
  - Diminished ability to think or concentrate nearly every day
  - Recurrent thoughts about death, suicidal ideation, or suicide attempt
- Sx cause clinically significant distress or impairment in functioning
- Sx are not caused by a substance or general medical condition
- Sx are not better accounted for by Bereavement

What can it look like?

- Irritability
- Withdrawal from family and peers
- Academic decline
- Somatic complaints
- Defiance
- “Acting out”

How do we diagnose it?

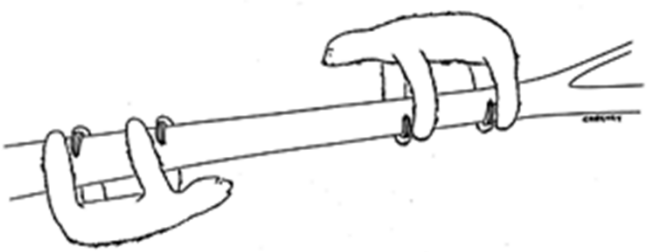
- Clinical Interview
- Collateral Information from parents, school, etc
- Exam, Labs
- Screening
  - PHQ
  - Beck Youth Depression Inventory

What's the course & prognosis?

- Depends on age of onset, episode severity, and presence of co-morbidities
  - Younger onset = worse
  - Recurrent episodes = worse
  - Co-morbidities = worse
- Mean length of episode = 9 mos
- Lifetime risk of relapse
  - After 1st episode = ~50% risk
  - After 2nd episode = ~80-85% risk
  - After 3rd episode = >90% risk

How do we treat it?

- Pharmacotherapy
- Psychotherapy
- Combination



"How long have you been on antidepressants?"

- Always ask about suicidal ideation and consider hospitalization!

Treatment (cont)

- Medications
- 1st Line - Selective Serotonin Reuptake Inhibitors (SSRIs)
  - Fluoxetine - Citalopram
  - Sertraline - Escitalopram
  - Paroxetine - Fluvoxamine
- 2nd Line
  - Bupropion - Mirtazapine

Treatment (cont)

- Medications
- 1st Line - Selective Serotonin Reuptake Inhibitors (SSRIs)
  - Fluoxetine - Citalopram
  - Sertraline - Escitalopram
  - Paroxetine - Fluvoxamine
- 2nd Line
  - Bupropion - Mirtazapine

Treatment (cont)

- SSRIs
- Fluoxetine
  - Start at 5-10mg
  - Side effects - headache, GI effects, sedation, insomnia
- Citalopram
  - Start at 5-10mg – MAX = 40mg
  - Side effects - headache, nausea, insomnia, GI effects, fatigue
- Sertraline
  - Start at 12.5-25mgSide effects - anorexia, vomiting, diarrhea, agitation
- Takes 2-12 weeks for response
- Continue treatment for 9-12mos after remission of sx

Treatment (cont)

- Second line agents
- Bupropion (adolescents)
  - Start at 37.5mg /day if <25kg, 75mg/day if >25kg
  - Side effects - insomnia, decreased appetite, headache, stomachache, irritability, may worsen tics, seizures
  - Contraindicated for pts with seizures or eating disorders
- Mirtazapine
  - Start at 7.5mg
  - Side effects – Sedation, increased appetite, constipation , abnormal dreams

Treatment (cont)

- Psychotherapy
- Cognitive-Behavioral Therapy
  - 1st line in Mild to Moderate Depression
  - Focus = recognizing maladaptive beliefs/expectations and how they influence behaviors and attitudes
- Interpersonal Therapy
  - Focus = Past and current interpersonal conflicts, social support
- Family Therapy
  - Focus = Family system, communication, patterns of interactions
- Play Therapy

Treatment

- TADS - Treatment for Adolescents with Depression Study
- 439 teens (12-17yo) at 13 sites
- Four treatment arms
  - Medication (fluoxetine)
  - Therapy (cognitive-behavioral therapy)
  - Combination of med and therapy
  - Placebo

Treatment

- TADS (cont)
- At 12 wks, Combo response was superior
- At 18 wks, Combo response was superior
- At 36 wks, all treatment was equal

- Fluoxetine can accelerate response
- CBT can enhance safety

Where do we run into problems?

- The medicine isn’t working or isn’t working well enough
- The medicine is causing intolerable side effects
- Nothing works

Problem 1: The medicine isn't working well enough

- Is the dose adequate?
  - No good dose:weight ratio
- Has the patient been taking it long enough?
  - 4-6 weeks at least
- Do they need to try a different medication?
  - Try different SSRI?
  - Try different class?
  - Try augmenting medication?

Problem 1: The medicine isn’t working well enough

- THERAPY
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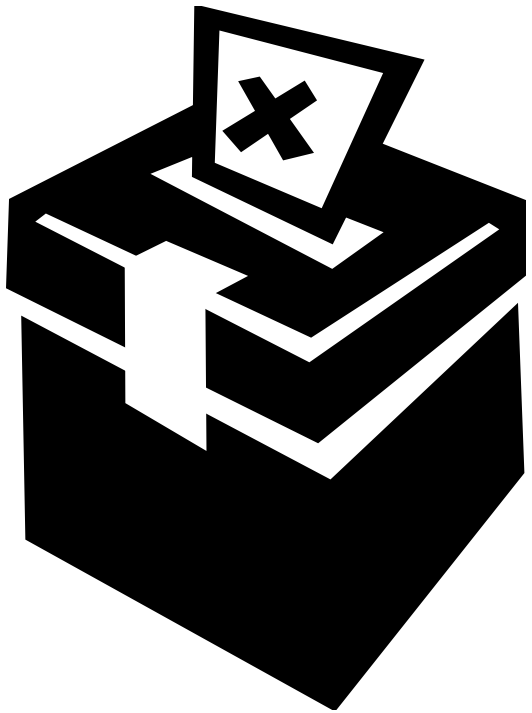
Problem 2: Side effects



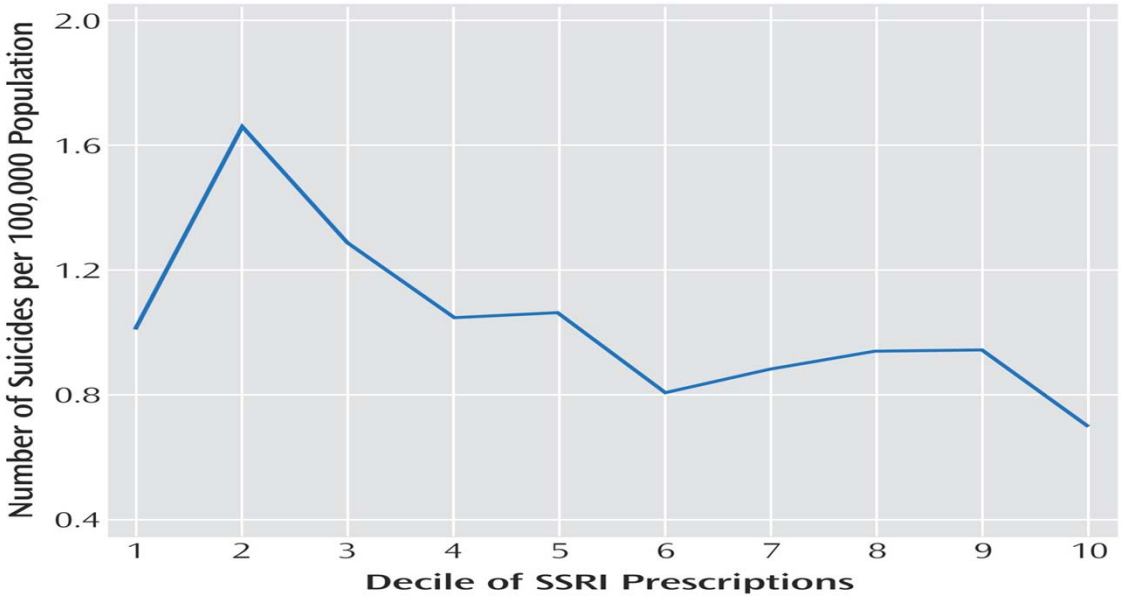
SSRIs and Suicide

- 2004 FDA analysis
  - 24 controlled studies
  - ~4400 children and adolescents
  - Variety of disorders: depression, OCD, GAD, ADHD
  - Drugs: fluoxetine, sertraline, paroxetine, citalopram, fluvoxamine, mirtazapine, venlafaxine, bupropion, nefazodone
- 2% on placebo had suicidal ideation
- 4% on active drug had suicidal ideation
- No completed suicides
- Black Box Warning put in place

SSRIs and Suicide (cont)

- Studies assessing the number of suicides in the 1990s per US counties to the number of SSRI prescriptions written for children and adolescents have found that suicide rates decrease as prescription rates increase.

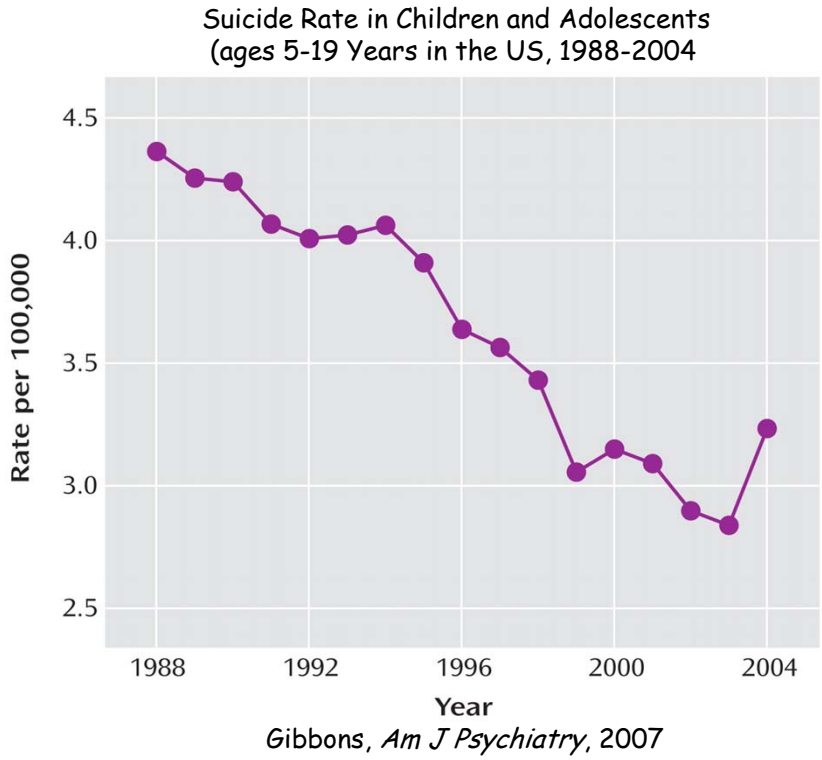
Relationship Between SSRI Prescriptions and
Observed Suicide Rate (per 100,000) in US, 1996-1998



Gibbons, *Am J Psychiatry*, 2006

SSRIs and Suicide (cont)

- After Black Box Warning in 2004, # of SSRI prescriptions for kids decreased by 22%
- In the US, the suicide rate between 2003-2004 increased by 14%



SSRIs and Suicide (cont)

Bottom Line: _____

Benefit seems to outweigh Risk.

Monitor closely in first few months after starting and stopping treatment

Problem 3: Nothing works

- Is it depression?
- Differential Dx
  - Substance-induced mood disorders
  - Anxiety (restlessness, irritability)
  - ADHD (restlessness, irritability)
  - ODD/Conduct disorder (defiance, acting out)

Anxiety Disorders

What is “Anxiety”?

- Merriam-Webster:
  - 1 : painful or apprehensive uneasiness of mind usually over an impending or anticipated ill: fearful concern or interest: a cause of anxiety
  - 2 : an abnormal and overwhelming sense of apprehension and fear often marked by physiological signs (as sweating, tension, and increased pulse), by doubt concerning the reality and nature of the threat, and by self-doubt about one's capacity to cope with it
- Livingston, 1991:
  - Emotional uneasiness associated with the anticipation of danger

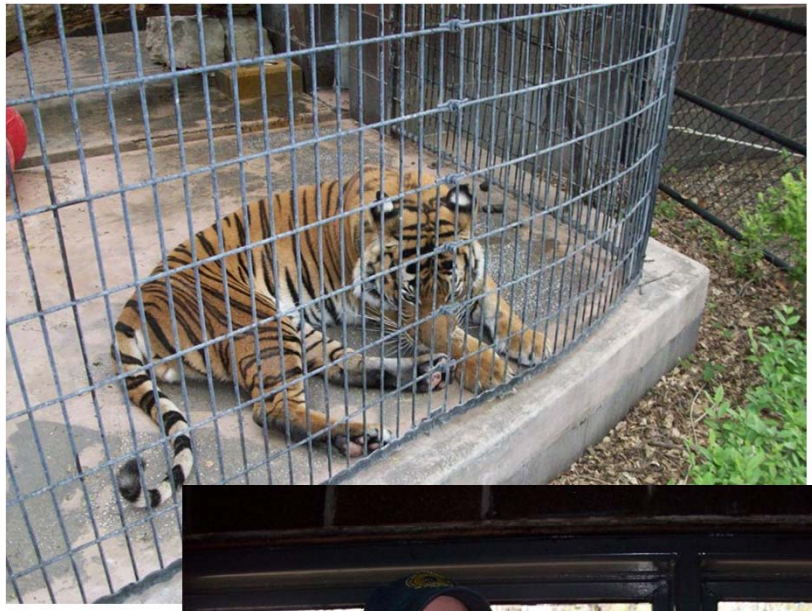
Is anxiety normal?

- Yes, “anxiety is a normal emotion throughout development and plays both a protective and adaptive role” Lewis 2002
  - Infants
  - Toddlers
  - Pre-school kids
  - School-aged kids
  - Adolescents

So, is anxiety helpful?

- Fear is a normal reaction to real or imagined danger or threat and may play a necessary role in the survival of the species

- “Just because you’re paranoid, doesn’t mean they aren’t after you.”
  – Catch 22, J. Heller



When is anxiety a problem?

- Anxiety causes significant distress that impairs functioning
- The anxiety does not occur in a normal developmental context

What does DSM consider anxiety?

- Separation Anxiety Disorder
- Generalized Anxiety Disorder
- Social Phobia
- Specific Phobia
- Panic Disorder (w/ & w/o Agoraphobia)
- Posttraumatic Stress Disorder
- Obsessive Compulsive Disorder*

How common is it?

Separation Anxiety Disorder	2-5%
Generalized Anxiety Disorder	3-5%
Social Phobia	1-15%
Specific Phobia	2-3%
Panic Disorder (w/ & w/o Agoraphobia)	0.6-5% (teens)
Posttraumatic Stress Disorder	1-6%
Obsessive Compulsive Disorder	2.5%

When does it start?

- Separation Anxiety
- GAD
- Social Phobia
- Specific Phobia
- Panic Disorder
- PTSD
- OCD

- Most often prepubertal
- >7yo
- 11-12yo
- Range paralleling Nl fears, 7-13yo
- Adolescents?
- UM, with trauma… possible at any age?
- Adolescence/early adulthood

What can it look like/Unique DSM Criteria: Separation Anxiety Disorder

- Tremendous fear and anxiety regarding being apart from home or the primary attachment figures.
- Anxiety is inappropriate for age/ developmental level and lasts at least 4 weeks
- Age-appropriate from ~7mos to ~6yrs
- School refusal and excessive somatic complaints = most common reason to seek tx

What can it look like/Unique DSM Criteria: Generalized Anxiety Disorder

- Excessive and uncontrollable worry
- Persistence and unrealistic nature of worry is more problematic that worries themselves
- Kids can be overly conforming and perfectionistic, seen by adults as rigid and oppositional
- Often have somatic symptoms
- Often irritable

What can it look like/Unique DSM Criteria: Specific Phobia

- Marked and persistent fear of a specific object or situation such that the kid either avoids the stimulus whenever possible or endures it with great distress
- Must interfere with normal routine or functioning
- Associated with significant anticipatory anxiety
- Kids don't recognize as excessive
- Avoidance may look like acting out
- Physiologically looks like panic

What can it look like/Unique DSM Criteria: Social Phobia

- Persistent fear of one or more social situations in which a person is exposed to unfamiliar people or the scrutiny of others
- Must interfere with normal routine or functioning
- Associated with significant anticipatory anxiety
- Kids don't recognize as excessive
- Avoidance may look like acting out
- Physiologically looks like panic

What can it look like/Unique DSM Criteria: Panic Disorder

- Experience of unexpected panic attacks accompanied by a persistent apprehension about their recurrence and/or behavioral changes in an attempt to prevent attacks
- Are kids cognitively capable of connecting the internal sensations of panic to catastrophic thinking?
- Kids more often experience somatic symptoms than cognitive symptoms

What can it look like/Unique DSM Criteria: Posttraumatic Stress Disorder

- Set of characteristic symptoms that develop after exposure to a traumatic event that leads to intense fear, helplessness, or horror
- Kids may present with agitation or disorganization
- Re-experiencing may appear as repetitive play
- Numbing may be difficult for kids to articulate, so need collateral
- Does nature of trauma matter?

What can it look like/Unique DSM Criteria: Obsessive Compulsive Disorder

- Obsessions or compulsions
  - O: recurrent, persistent thoughts that are intrusive, inappropriate, from own mind
  - C: repetitive behaviors or mental acts meant to neutralize obsessions or prevent something dreaded
- Cause marked distress, are time-consuming (>1hr/d), or interfere with normal routine/functioning in school/work/relationships

How do we diagnose it?

- Clinical Interview
- Collateral Information from parents, school, etc
- Exam, Labs
- Screening/Rating Scales
  - SCARED
  - GAD-7, PHQ
  - Beck

Treatment

Separation Anxiety Disorder	Therapy
Generalized Anxiety Disorder	Therapy
Social Phobia	Therapy
Specific Phobia	Therapy
Panic Disorder	Therapy
Posttraumatic Stress Disorder	Therapy
Obsessive Compulsive Disorder	Therapy +Meds

Role of Medications

- Separation Anxiety Disorder — As adjunct to therapy if needed
- GAD — As adjunct to therapy
- Social Phobia — As adjunct to therapy if needed
- Specific Phobia — No role?
- Panic disorder — As adjunct to therapy
- PTSD — As adjunct to therapy
- OCD — As adjunct to therapy

Medication

- Most info about medication treatment of childhood anxiety comes from research on obsessive compulsive disorder
- Fluoxetine, clomipramine both have been shown to treat OCD in kids
- Variable data for using other medications (Buspirone, TCAs, benzos, beta-blockers) to treat childhood anxiety

SSRIs

- OCD, PTSD, GAD
- Similar titration to depression
- Anxiety often requires higher doses than depression to respond

Where do we run into problems?

- Medicine and therapy aren’t working

Is something else going on?

Co-Morbidity

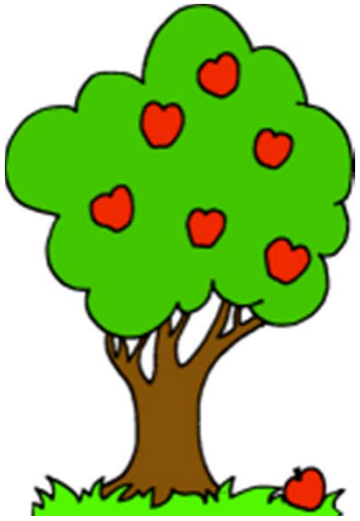
- General population
  - ~40% of children
  - ~15% of adolescents
- Clinic population
  - ~50% of kids and teens
- Most common?
  - Another anxiety disorder
  - Depression

What's the course & prognosis?

- Separation Anxiety Disorder
  - Increased risk for panic d/o, depression, social phobia
- Generalized Anxiety Disorder
  - Chronic, fluctuating course
- Social Phobia
  - Limited research, appears to have long-term impact on functioning
- Specific Phobia
  - Improves over time, but may persist to some degree into adulthood
- Panic Disorder
  - Can persist if not treated
- Posttraumatic Stress Disorder
  - Can persist if not treated
- Obsessive Compulsive Disorder
  - Chronic, fluctuating course

What about parental anxiety?

- Anxious kids and anxious parents
  - CBT vs. CBT + parental anxiety management
  - Parental anxiety management had no impact on anxious kids if parents were not anxious
  - If parents were anxious, kids' anxiety improved more if they had CBT and parents received PAM



Disruptive Behavior Disorders

"Drive, George, drive! This one's got a coathanger!"

DBD - Types

- Oppositional Defiant Disorder = enduring pattern of negative, disobedient, and hostile behavior towards authority figures, as well as an inability to take responsibility for mistakes
- Conduct Disorder = pattern of behavior that violates the rights of others, including aggression, destruction, deceitfulness, and rule-breaking

How common are they?

ODD

- 2-16% of school-aged kids
- Onset is variable, typically by 8yo, almost always by adolescence
- Before puberty: boys>girls
- After puberty: boys=girls

Conduct

- Prevalence: 1.5-3.4%
- Boys 3-5x more likely than girls (girls catching up?)
- Onset: Boys = 10-12yo, Girls = 14-16yo
- Incidence increases with age
- Associated with low SES, Urban>Rural

The Criteria - ODD

- Pattern of negativistic, hostile, and defiant behavior for at least 6 mos
- At least 4 of following sx if they occur more frequently than for peers:
  - Often loses temper
  - Often argues with adults
  - Often actively defies or refuses to comply with adults' requests or rules
  - Often deliberately annoys people
  - Often blames others for his or her mistakes or behavior
  - Often is touchy or easily annoyed by others
  - Often is angry or resentful
  - Often is spiteful or vindictive

The Criteria - Conduct

- Pattern of behavior in which rights of others or societal norms are violated for >12mos
- At least 3 of following sx in last 12mos and at least 1 sx in last 6 mos
  - Aggression to people or animals
    - Often bullies, threatens, or intimidates others
    - Often initiates physical fights
    - Has used a weapon that can cause serious harm to others
    - Has been physically cruel to people
    - Has been physically cruel to animals
    - Has stolen while confronting the victim
    - Has forced someone into sexual activity
  - Destruction of property
    - Has deliberately engaged in fire setting with intention of causing damage
    - Has deliberately destroyed others' property
  - Deceitfulness or theft
    - Has broken into someone else's property
    - Often lies to obtain good or favors, or to avoid obligations
    - Has stolen items of non-trivial value without confrontation
  - Serious violations of rules
    - Often stays out overnight without parental permission before 13yo
    - Has runaway overnight at least twice while living with parental figure
    - Often truant from school before 13yo

What do they look like?

ODD

- Behavior causes functional impairment
- Behaviors may only occur in one setting
- Behaviors may only occur with adults patient knows well
- Often little insight, patient feels behavior is justified

Conduct

- Behavior causes functional impairment
- Childhood onset = behaviors before 10yo
- Suicidal thoughts, gestures, and acts not uncommon
- Peer relationships can be limited or volatile
- Can be charming, but often hostile when questioned directly about behavior
- Behavior may not have a logical “goal”

What else might it be? – Diff Dx

ODD

- Normal developmental behavior
- Adjustment Disorder
- Conduct Disorder
- Mood disorders
- ADHD
- Cognitive disorders/Mental Retardation

Conduct

- Mood disorders
- Psychotic disorders
- ADHD
- Substance use disorders
- Head trauma

What else might it be? –Co-morbidities

- Substance use disorders
- Mood disorders
- ADHD

What's the course & prognosis?

ODD

- Highly variable depending on:
  - Family stability
  - Presence/absence of parental pathology
  - Presence/absence of co-morbidity
  - Cognitive ability
- Possibly 2 subtypes? Those who progress to Conduct (<50%) and those who don't?

Conduct

- Worse with earlier onset, co-morbid psychopathology, and low IQ
- Better with milder sx, absence of other psychiatric disorders, and normal IQ

ODD Treatment

- Address co-morbidities
- Family therapy, Parent Management training
- Individual therapy

Conduct Treatment

- Multimodality treatment programs are best
- Social skills training, Peer mentoring
- Family therapy, Parent Management training
  - Promote supportive, consistent environment with well-defined rules and consequences
- Individual therapy
  - Behavioral basis, problem solving

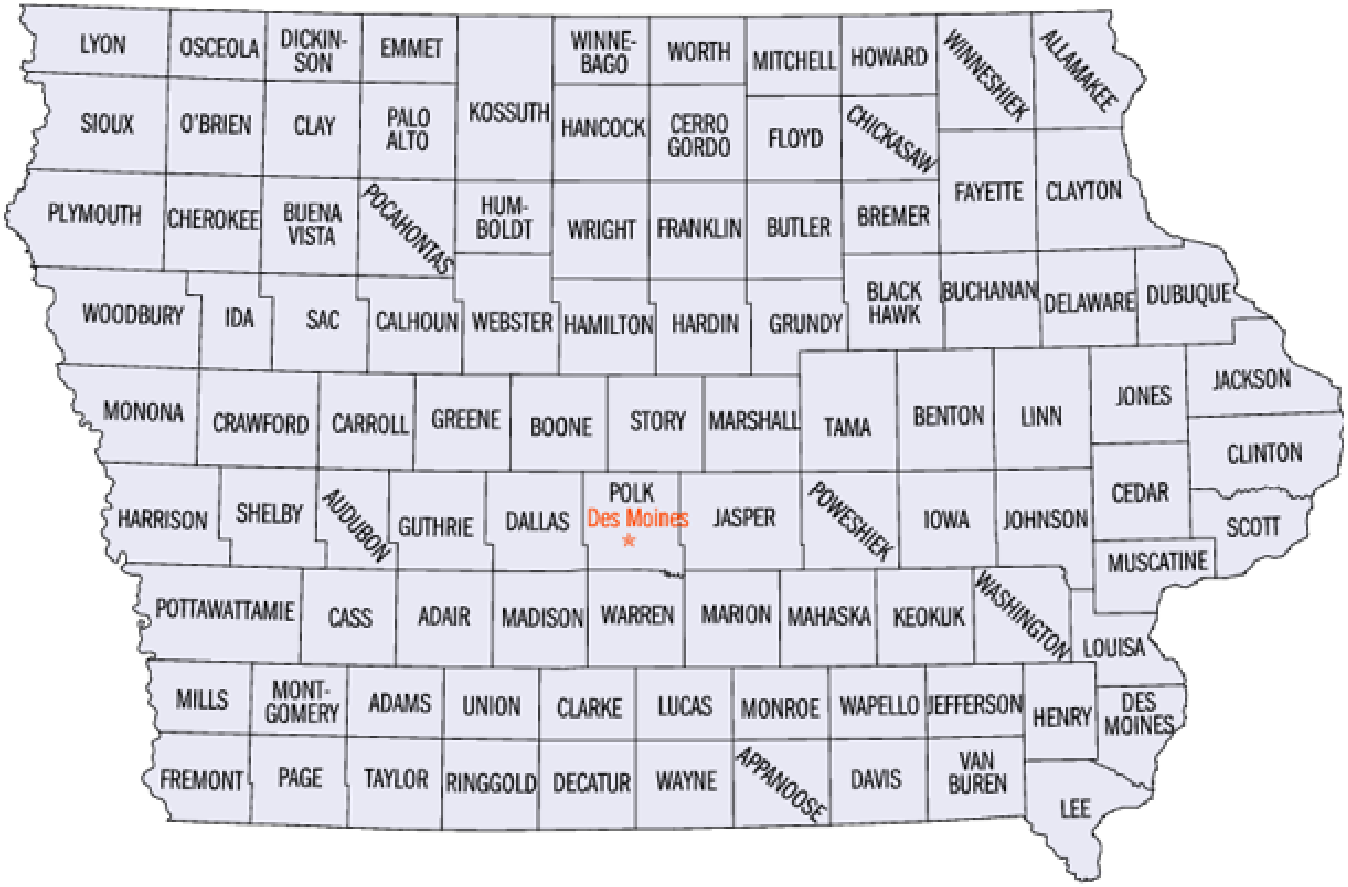
Conduct Treatment (cont)

- Pharmacology
  - Antipsychotics
    - Risperidone, olanzapine, quetiapine, ziprasidone, aripiprazole
    - May reduce aggression
  - Alpha-2 agonists
    - Guanfacine, clonidine
    - May reduce impulsivity
  - SSRIs
    - Fluoxetine, citalopram, sertraline, etc
    - Address mood and anxiety components
  - Mood stabilizers
    - Lithium, depakote, carbamazepine
    - Address mood lability
- Treat co-morbid conditions

Where do we run into problems?

- Developing and managing a multidisciplinary team…

Mental Health Care in Iowa



How do we solve this?

What Else Can We Do?

- Increase number of child psychiatric providers
- Extend the range of psych providers
  - Telemedicine
  - CYC-I
- Other ideas?

Questions?