

# **Complex, Comorbid, Contraindicated, and Confusing Patients**

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# ADHD in the Shadows

- Importance of comorbid disorders
- ADHD often not even assessed at intake
- ADHD vastly underdiagnosed, especially in adults
- Even when ADHD is known it is clinically underappreciated

# Why did we think that ADHD went away in adolescence?

- True hyperactivity was either never present or diminishes to mere restlessness after puberty.
- People learn compensations (but is this remission?).
- People with ADHD stop trying to do things in which they know they will fail.
- People with ADHD drop out of society or end up in jail and are no longer available for studies.
- “Helicopter Moms” compensate for their ADHD children, adolescents, and adults.

# Recognition and Diagnosis

- Most clinicians who treat adults never consider the possibility of ADHD.
- Less than 8% of psychiatrists and less than 3% of physicians who treat adults have any training in ADHD. Most report that they do not feel confident with either the diagnosis or treatment. (Eli Lilly Marketing Research)
- ADHD in adults is an “orphan diagnosis” ignored by the APA, the DSM, and training programs 38 years after it was officially recognized to persist lifelong.

# It is Not Adequate to Merely Extend Childhood Criteria

- Some symptoms diminish with age (e.g., hyperactivity becomes restlessness).
- Some new symptoms emerge (sleep disturbances, reactive mood lability).
- Life demands get harder. Adults with ADHD must do things that a child doesn't...Love, Work, and raise kids (half of whom will have ADHD).
- Compensations are overwhelmed and exhausted by *successes*.

# ADHD Issues

What are the consequences of non-treatment?

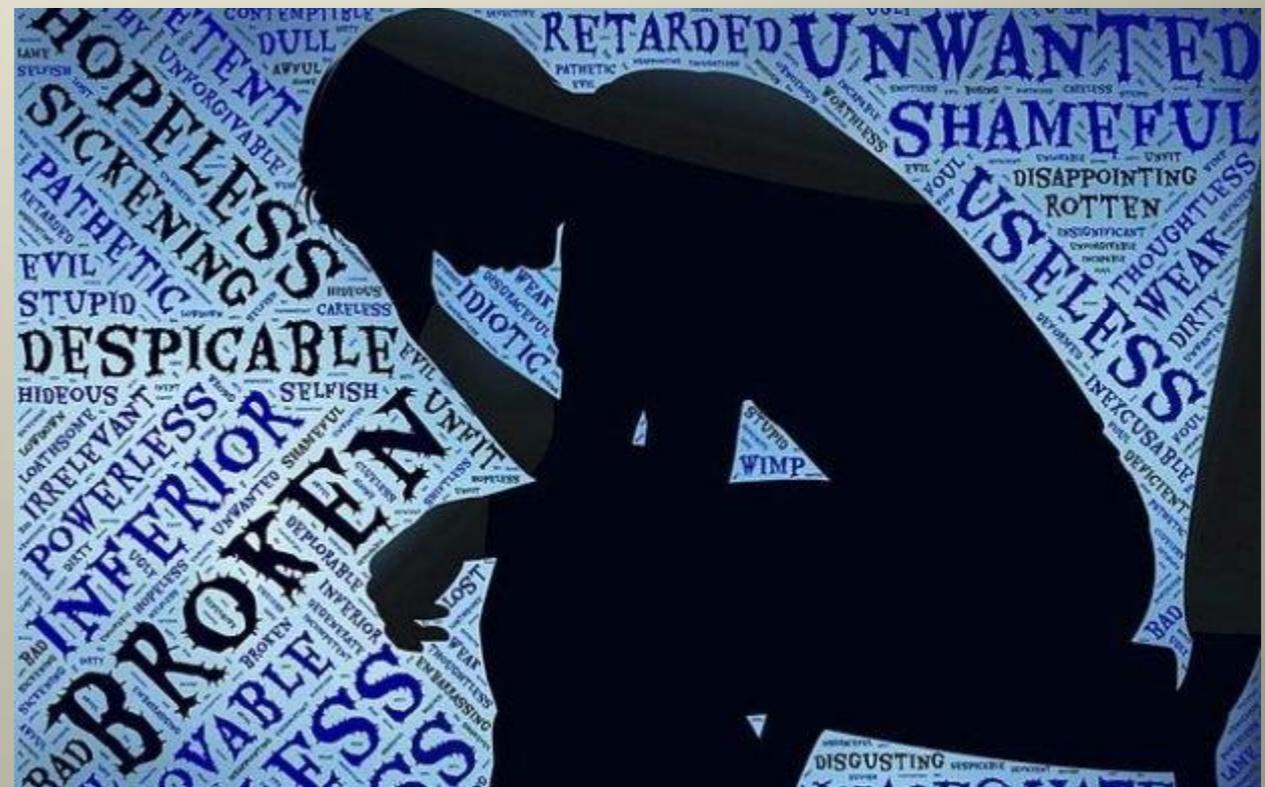
- Poor acquisition of life skills. Difficulty with attainment of adult autonomy.
- Impaired acquisition of self image as fully functional adult. Is this the source of conflict with authority figures or is it O.D.D.?
- Academic and occupational under-achievement.
- Substance misuse/abuse.
- Poor emotional control with outbursts and impulsivity.

# ADHD Issues: Adult Competence

- “Helicopter moms” and spouses get the child through school but at a cost. “Peter Pan” syndrome.
- External structure is not internalized as adult life skills and competencies.
- The world outside of the home is unwilling to provide the needed level of structure.
- Age of acquisition of cultural norms is over by 18 years of age. If missed, they are missed forever and will never become intuitive.

# ADHD and The Mood Disorders

- Major Depressive Disorder
- Bipolar Disorder
- Dysthymia



# Relationship Between ADHD and Depression

- Depression is a result of ADHD
- Depression is not caused by ADHD but accompanies ADHD
- ADHD misdiagnosed as Depression (when not clinically depressed)

# ADHD and Depression

- Persistent sad or irritable mood:
  - ✓ ADHD: Sadness or irritability is context or environment specific.
  - ✓ Depression: Consistent across various contexts
- Loss of interest in activities once enjoyed:
  - ✓ ADHD: Intense interest followed by sudden boredom
  - ✓ Depression: No enjoyment in anything.
- Significant change in appetite or body weight:
  - ✓ ADHD: Due to current activities, hyperfocus, stimulants
  - ✓ Depression: Not being hungry, eating constantly

# ADHD and Depression

- Sleeping too little or too much:
  - ✓ ADHD: Due to poor sleep habits, hyperfocus, stimulating activities, more willful, stimulants, context based
  - ✓ Depression: Despite wanting to sleep, consistent inability to fall asleep or sleeping a lot and still feeling tired regardless of external activities, Restless, Agitation
- Physical agitation or slowing and Fatigue:
  - ✓ ADHD: Due to unstimulating situations and boredom, Poor sleep
  - ✓ Depression: Feels more “internal”, Across situations of varying stimulation levels

# ADHD and Depression

- Feelings of worthlessness or inappropriate guilt:
  - ✓ ADHD: Guilt over unactualized intentions, ADHD symptoms, Executive Function Deficits
  - ✓ Depression: Global sense of guilt and feeling of inadequacy unrelated to accomplishments.
- Difficulty concentrating:
  - ✓ ADHD: Symptom of ADHD, Consistent given current context, Distractions (Outside-In)
  - ✓ Depression: Thoughts feel jumbled, slowed, not cohesive (Inside-Out)

# ADHD and Depression

- Feelings of worthlessness or inappropriate guilt:
  - ✓ ADHD: Guilt over unactualized intentions, ADHD symptoms, Executive Function Deficits
  - ✓ Depression: Global sense of guilt and feeling of inadequacy unrelated to accomplishments.
- Recurrent Thoughts of Death/Suicide and Psychosis
  - ✓ ADHD: Uncommon
  - ✓ Depression: Common

# ADHD and Depression

- Studies show at least 30% of those with ADHD will experience a depressive episode or have a mood disorder.
- ADHD: 4 times the risk
- Inattentive only= Higher risk for depression
- Hyperactive/Impulsive=Higher risk of depression and suicide

# ADHD and Depression

- Increased severity of ADHD symptoms are correlated with higher depressive symptoms.
- The symptoms for both conditions are worse when someone has both than what would be present in having one condition alone.
- Having ADHD is associated with:
  - earlier depression
  - more frequent hospitalizations due to depression
  - more recurrent episodes
  - higher suicide risk.

# ADHD-Specific Risk Factors for Depression

- ADHD neurochemical factors
- ADHD neurological factors for emotional dysregulation
- Co-morbid Disorders
- Impulsivity
- Low self esteem/Negative Self Concept
- Executive Functioning Deficits leading to failure or paralysis
- Academic Problems
- Negative messaging from others
- Social Problems
- ADHD children higher risk for physical and sexual abuse

# Psychological Therapies for ADHD and Depression

- Cognitive-Behavioral Therapy (CBT)
- Dialectical Behavior Therapy (DBT)
- Acceptance and Commitment Therapy (ACT)
- Interpersonal Psychotherapy
- Executive Functioning Coaching

# Depression and ADHD

- Treatment options
  - stimulant alone (50% of depressions resolve with just stimulant medication)
  - stimulant + antidepressant (fluoxetine)
  - antidepressant alone (Bupropion 450 mg)

# Depression and ADHD

- Theoretical Serotonin Syndrome interaction between AMPH's monoamine oxidase inhibition and SSRI's.
- No one has ever seen this interaction.
- Biggest obstacle is remembering to take the antidepressant consistently.
- Fluoxetine has longest 8 day half-life.

# ADHD Issues: Mood Reactivity

- Second most common complaint or impairment reported by adults with ADHD.
- Exquisite sensitivity to *the perception* of rejection, teasing, and criticism
  - “Rejection-sensitive dysphoria” led to early use of MAO-I’s in treatment of ADHD.
- The interpersonal nature of the triggers of the mood instability causes confusion with borderline personality disorder.

# ADHD Issues: Rejection Sensitivity

- If internalized...instantaneous “depression” and dysphoria.
- If externalized...instantaneous rage at source of rejection. “Blind-sided,” no warning, passes quickly followed by contrition and regret.
- Interferes with long-term relationships and job retention.
- Can lead to incarceration and chronic unemployment.

# Rejection Sensitive Dysphoria

- Old concept – Hallmark symptom of “atypical depression.”
- The reasons it was not typical were:
  - Triggered
  - Instantaneous
  - Over-reaction (Dysphoria means “unbearable.”)
  - To the perception that they have disappointed someone and that because of that disappointment
  - The other person withdrew their love, approval and respect.

# Rejection Sensitive Dysphoria

- Responds to alpha 2a specific adrenergic agonist medications
- Clonidine 0.2 to 0.5 mg usually at bedtime.
- Guanfacine 2 to 6 mg usually at bedtime.
- 30% robust response to either one.
- 50% robust response when both are tried sequentially
- Side effects are sedation, dry mouth, paradoxical irritability, and dizziness on standing.

# **Mary – 19 y/o college student with mixed anxiety and depression**

- Sophomore English major “in a slump” since the start of the semester.
- GPA has slipped from 3.5 to 2.0
- No motivation for anything; just want to stay in bed. Does not attend classes. “hopelessly behind.”
- Social withdrawal; turns down invitations.
- Denies alcohol and drug use.
- Lost 12 lbs without trying in 3 months.

# Mary – 19 y/o college student with mixed anxiety and depression

- C/O “severe anxiety all the time”.
- She is afraid of flunking out.
- She is afraid of what her parents will say when they find out how poorly she’s doing.
- She is afraid of what her friends and teachers think of her.
- She is afraid she’ll never feel better again.
- She is afraid of being physically ill but refuses to see any doctor.

# Mary – 19 y/o college student with mixed anxiety and depression

- Her sleep which had always been poor got worse.
- “I can’t turn off my mind. My thoughts race from one concern and worry to another.”
- “I don’t fall asleep until 3 am and then sleep away the whole next day.”
- Even though her total amount of sleep is < 12 hours, she is always tired and lethargic. She tell most people that she has Mono.
- She does not snore.

# Mary – 19 y/o college student with mixed anxiety and depression

- She has vague thoughts of “I’d be better off dead” or “I wouldn’t mind if I didn’t wake up in the morning.” She denies suicidal plan or impulses.
- She is uncharacteristically irritable. She reports some sadness but denies crying spells.
- Her memory and concentration are reported to be much worse than usual. “What’s the point in reading? I’m not going to remember a thing.”
- Her mother and maternal grand mother have a history of repeated episodes of depression that have been responsive to medication.
- The deadline for withdrawal from classes is 2 days away and she has done nothing to protect her academic standing.

# How many diagnoses do we have?

- Major Depressive Disorder 1<sup>st</sup> episode
- Generalized Anxiety Disorder?
- Phobic avoidance of failure.
- Bipolar Mood Disorder (no mania yet)
- Circadian Rhythm Disorder
- Bad sophomore slump?
- Mononucleosis? Anemia? Other physical illness?
- Do you hear ADHD?

# ADHD?

- It was there but you have to ask about ADHD or you'll miss it every time. Her brother was a behavior problem throughout high school but the patient's mother didn't want him "labeled."
- So were the Mononucleosis and a mild anemia.
- The patient estimated that half of her "depression," memory and concentration loss, lethargy, hopelessness, and anxiety lifted as soon as she took her Adderall XR each morning.
- Her entire sleep disturbance resolved with a dose of Adderall XR at bedtime.

# Mary - Treatment Outcome

- The patient estimated that half of her “depression,” memory and concentration loss, lethargy, hopelessness, and anxiety lifted as soon as she took her Adderall XR each morning.
- Trials on Sertraline (Zoloft) and duloxetine (Cymbalta) were ineffective. Bupropion caused agitation and insomnia right from the first pill.
- Her entire sleep disturbance resolved with a dose of Adderall XR at bedtime.
- CBT was “helpful” but she still complained of hours of worry about performance and what other’s thought about her.

**What to do with the rest of her  
depression and anxiety?**

# **ADHD and BIPOLAR DISORDER**

- 50%-90% of people with BD have ADHD
- 20% of people with ADHD have BD

# ADHD and Mania

- Inflated Self-Esteem/Grandiosity
- Decreased Need for Sleep
- Hyperv verbal more than usual/Pressured Speech
- Racing thoughts
- Attention drawn to irrelevant or unimportant items
- Increase Goal Directed Activity
- Excessive involvement in pleasurable/impulsive activities
- Irritability
- Hyperactivity
- Emotional Dysregulation/Lability
- Hypersexuality

# Differential Diagnosis

## Bipolar Disorder vs. ADHD

- More likely to be Bipolar Disorder if:
  - Symptoms are not apparent at birth
  - Higher Chronicity of impairment
  - Mood dysregulation is random or cyclical vs. contextual
  - Mood significantly different when not depressed or manic
  - Mood shifts are rapid
  - Moods are intense
  - “Limbic” rages

# Differential Diagnosis

## Bipolar Disorder vs. ADHD

- More likely to be Bipolar Disorder if:
  - Duration of mood shifts are long.
  - Family History of Bipolar Disorder
  - Psychosis
  - Destructiveness/Violence (parents are afraid of their kids)
  - Regressive/Primitive behavior
  - High Trigger sensitivity
  - Grandiosity
  - Respond well to mood stabilizers

# ADHD and Bipolar Disorder

- More ADHD symptoms than ADHD alone
- Earlier age of onset
- More comorbid disorders than those with ADHD alone
- Higher morbidity
- More likely to be on disability
- Had poorer overall functioning
- Presence of conduct disorder or Oppositional Defiant Disorder
- Higher risk of substance abuse
- Higher suicide rate

# Suicide and Bipolar Disorder

- 15 times greater than general population
- 20% of people with BD complete suicide
- 50% attempt suicide
- Suicides more likely in manic phase
- Bipolar II characterized by more lethal suicide attempts
- 10 years reduced life expectancy
- Risk increases when someone also has ADHD

# **Bipolar Disorder and ADHD**

## **Reasons for Association**

- ADHD+BD may be a separate entity than BD alone
- ADHD can be a developmental marker for BD
- Mating?

# Suicide and ADHD

- Suicide risk increases when someone also has ADHD
- Swedish study found that:
  - Non-ADHD: 1.3% attempted suicide  
0.02% completed suicide
  - ADHD: 9.4% attempted suicide  
0.2% completed suicide

# Suicide and ADHD

Hinshaw et al (2012):

Reported at least one suicide attempt at the 10-year follow-up:

22% of ADHD-Combined

8% of ADHD-Inattentive

6% of Non-ADHD

Girls who reported self-injury:

51% of ADHD-Combined

29% of ADHD-Inattentive

19% of Non-ADHD

# Suicide and ADHD

- Chronis-Tuscano (2010):
  - Children Between the Ages of 9-18
  - Specific suicide plan at some point
  - ADHD: 12% vs. Non-ADHD: 1.6%
- Women 4X more likely to attempt than males
- Males are 10X more likely to commit suicide
- Comorbid Disorders
- Impulsivity

# Harriet: 39 y/o DWF

- Mother of 2 girls, ages 7 and 20.
- Hospitalized for post partum depression X 2.
- 7 previous hospitalizations for depression with suicidal impulses.
- Onset of mood disturbances at age 13. Sustained irritability and “moodiness”.

# Harriet: Childhood

- Always high energy. Difficulty sitting still; talkative and chatty.
- Lifelong difficulty slowing down enough to fall asleep and stay asleep.
- “Solid C” student but capable of much more. “Under-achiever” or “lazy.”
- Poor self-esteem, could not make and keep friends, “last picked, first picked on.”

# Harriet: Adolescence

- Moodiness and irritability worse premenstrually.
- Only got positive attention from boys in dating situations.
- Academic performance is “spotty;” Gets by on high intellectual ability and positive relationships with several teachers.
- Discovered that grandmother had Bipolar.
- Sleep disturbance that was always present gets worse during times of low energy depressions and hypomanias.

# Harriet: Young adult

- Tried college but dropped out in 1<sup>st</sup> year due to worsening depression.
- Tried “diet pills” and “had a bad trip” that caused her 1<sup>st</sup> short hospitalization.
- Married after unplanned pregnancy. Marriage ended while she was in post partum depression.
- Overwhelmed by demands of house and infant. Unable to hold a job. Her parents took care of both her and child for extended periods.

# Harriet: Adulthood

- 6 subsequent hospitalizations for depression; one for mania. “Treatment resistant” to multiple meds. Forgets to take half the doses. Misses or is late for most appointments.
- On public assistance. SSDI.
- Second unplanned pregnancy followed by post partum depressive episode.
- Discovers that sister and her 2 children have been diagnosed with ADHD.

# **Psychological Therapies for ADHD and Bipolar Disorder**

- Cognitive-Behavioral Therapy (CBT)
- Dialectical Behavior Therapy (DBT)
- Acceptance and Commitment Therapy (ACT)
- Interpersonal Psychotherapy
- Executive Functioning Coaching

# Psychopharmacological Treatments: Bipolar Disorder

- Mood Stabilizers
  - Lithium
- Anti-convulsants
  - Divalproex Sodium (Depakote)
  - Carbamazepine (Tegretol)
  - Lamotrigine (Lamictal)
- Antipsychotics
  - Olanzapine (Zyprexa)
  - Ziprasidone (Geodon)
  - Risperidone (Risperdal)

# Psychopharmacological Issues: Treating Bipolar Disorder and ADHD

- Stimulants can make BD worse
- Stimulants can greatly prevent BD episodes
- Treat the BD first then the ADHD
- Having ADHD no effect on BD medication except in cases of conduct disorder
- BD+ADHD: Higher attenuation of medications
- ADHD: Poor compliance consistently
- BD: Poor compliance when manic
- See a psychopharmacologist or psychiatrist who has expertise in both BD and ADHD

# Psychopharmacological Therapies for ADHD and Bipolar Disorder

- Only two published reviews in children<sup>1</sup>
- One study showed Adderall to be safe and effective in the treatment of comorbid ADHD in pediatric bipolar disorder after mood stabilization with divalproex sodium<sup>2</sup>
  - effective on ADHD symptoms
  - no significant side effects
  - no worsening of manic symptoms

<sup>1</sup> Wozniak J, Biederman J. *J Clin Psych* 2001; 62 [suppl 14]:10-15.

<sup>2</sup> Scheffer et al, *Am J Psychiatry* 2005;162:58-64.

# Psychopharmacological Therapies for ADHD and Bipolar Disorder

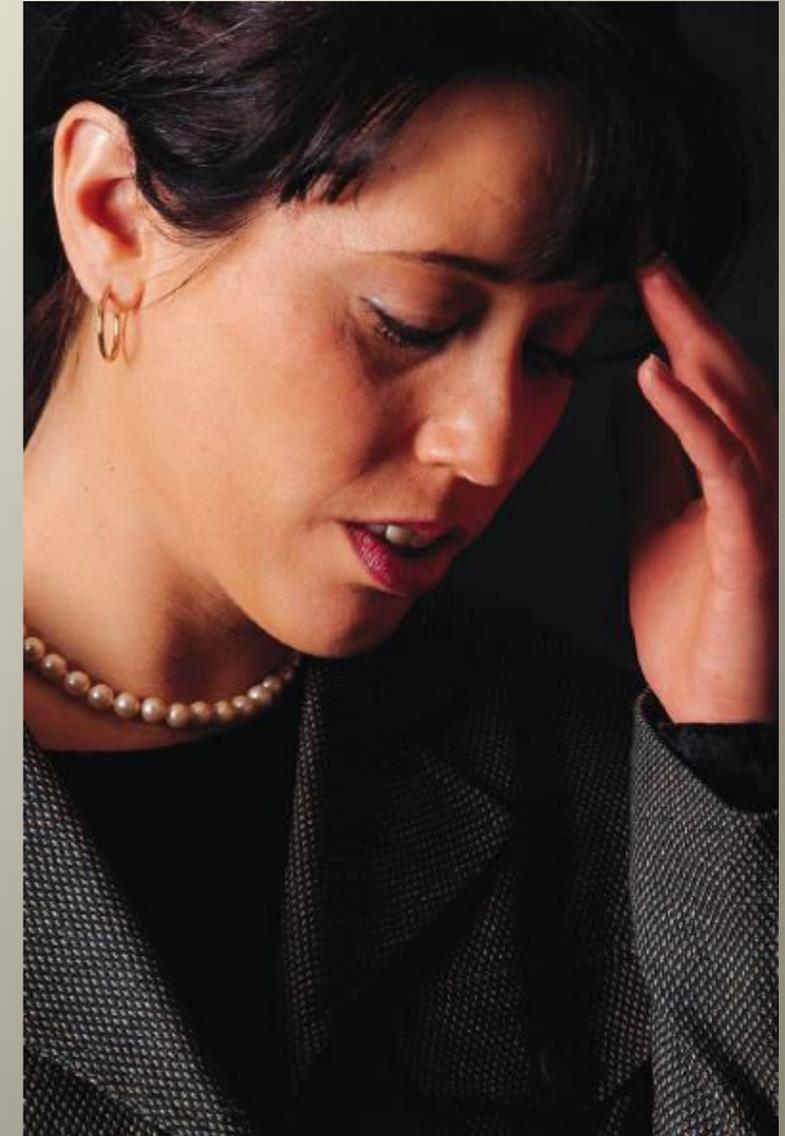
- Clinical experience with comorbid adults is very similar to published review of the treatment of children. Detailed informed consent is necessary.
- Mood must be stabilized first: traditional mood stabilizers in usual doses.
- Once the mood is stabilized, first line stimulant medication stabilize mood further and are the drugs of choice.<sup>1</sup>
- Atomoxetine should probably be contraindicated in BMD.<sup>2</sup>

<sup>1</sup>Viktorin A, et al. Am J Psychiatry 174:4; 341-8

<sup>2</sup>Henderson TA, Hartman K. (2004) Aggression, mania, and hypomania induction associated with atomoxetine. Pediatrics 114 (3):895-6.

# The Role of Estrogen

- Little published research about women and ADHD. Research on role of estrogen is preliminary.
  - mid-range blood level appears to be needed for stimulant medications to be effective.
- May be the basis of high incidence of PMS in women with ADHD.
- Post-menopausal women often need HRT for adequate ADHD symptom control.
- Continuous ovulation control?



# Harriett - Outcome

- Mood stabilized by combination of lithium and lurasidone (Latuda).
- Trials on dexamethylphenidate ER and generic Adderall XR found that dex MPH worked best at 50 mg per dose bid.
- Initiation insomnia resolved with addition of stimulant medication.
- No mood cycles in the 3 years she has been on this combination of medications.
- Returned to college making A's.
- Neither daughter shows mood instability. Younger daughter treated for ADHD and dyslexia.

# Medication Obstacles

## Executive Function Issues:

- Forget to Take
- Cannot Find
- Do not refill in time
- Poor follow up meeting with prescriber (which needs to be more often due to controlled nature of medication)

## Psychological/Philosophical Reasons:

- Stigma
- For psych-related meds: “Am I medicating my personality?”
- For ADHD meds: “I like my ADD-ness. I don’t want to lose it and be dull.” “Does this mean my baseline is abnormal?”



# What is Anxiety?

- Feeling of unease
- Nervousness
- Distress
- Accompanied by physical symptoms
  
- Related to stressful (perceived or actual) or uncertain event
- Fight or Flight Response
- Evolutionary adaptive vs. Evolutionary maladaptive

# The Anxiety Disorders

- 30% comorbidity with ADHD
- Obsessive-Compulsive Disorder (OCD)
- Generalized Anxiety Disorder (GAD)
- Social Anxiety Disorder
- Panic Disorder
- Phobias
- Stress

# How Anxiety Impacts ADHD

- Decreased attention
- Decreased concentration
- More distractibility
- Less likely to use ADHD strategies
- Interferes with executive functions
- Provides stimulation
- Can mitigate hyperactivity/impulsivity

# Why we might see ADHD with Anxiety

- Sensitive nervous system
- Genetics of both ADHD and Anxiety from parents
- Learning disabilities cause much stress
- Poor sleep
- Poor executive functioning:
  - Disorganization
  - Frustration over failed intentions
  - Relationship Problems
  - Academic Stress
  - Job Stress
  - Parental Stress
  - Inattention to early signs of problem/illness

# Anxiety vs. ADHD

- Anxiety avoidance: Threat, overstimulation, hypersensitivity
- ADHD avoidance: Fear of boredom, under stimulation, hyposensitivity, negative conditioning due to ADHD symptoms, or sensory overstimulation/hypersensitivity (without threat value)
- Overfocus vs. Hyperfocus
- Genesis of the attention deficit
- Primary or secondary executive functioning deficits?
- Ego syntonic or ego dystonic?
- Inquire more about the anxiety. Know the beast.

# Treatment: Health Hygiene

- Sleep Hygiene
- Exercise (brain-derived neurotrophic factor or BDNF)
- Healthy Eating
- Pro-active minimization of stress
- Affirmative people
- Humor
- Watch caffeine intake
- Limit or eliminate alcohol use
- Smoking cessation
- Sobriety necessary to be able to learn to tolerate anxiety

# Treatment:

## Boost the Executive Functions

- Externalize the frontal lobe into your environment to minimize stress as much as possible
- Time management (Write it out/set timers/alarms)
- Working memory (Use verbal cues)
- Organization (Reduce clutter)
- Decision making (Limit options when you can)
- Staying on task (Fidgets, Feng Shui ADHD Style, movement breaks)

# Treatment: Cognitive Therapy

- Mindful to thoughts
- Assess for evidence and accuracy
- Challenge inaccurate thoughts
- Probability vs. Possibility
- ACT: Accept that we are not immune to anxiety. Avoidance of pain causes suffering.

# Treatment: Cognitive Therapy

## Cognitive Distortions

- Black and white thinking
- Overgeneralization
- Filtering
- Personalization
- Control Fallacies
- Shoulds
- Emotional Reasoning

## Cognitive Restructuring/Challenging Dysfunctional (Inaccurate) Thoughts

Situation	Feeling & Intensity of a scale of 1-10	Automatic Thought	Evidence Against	Reframe	Feeling & intensity on a scale of 1-10

# Treatment: Behavioral Therapy

- Deep breathing
- Mindfulness (5 senses)
- Progressive Muscle Relaxation
- Exposure Therapy (plus response prevention)
- Worry Hour
- Soothing with relaxing stimuli
- Distraction with intense stimuli

# Psychopharmacological Therapy

- No clear published guidelines despite affecting up to 30% of ADHD patients.
- In children the pattern is to treat anxiety first, then ADHD.
- In adults, ask what the patient's priority is.
- The treatment of the anxiety disorder does not change just because the patient has ADHD.

# Psychopharmacological Therapy

- It is a frequent complaint that stimulant medications make patients' anxiety worse.
- But a meta-analysis of 23 studies found that stimulant medications were almost always associated with significantly lower levels of anxiety than placebo.<sup>1</sup>
- SSRI's alone are adequate to treat anxiety disorders only 40% of the time. The addition of a long-acting benzodiazepine is often necessary, at least initially.
- The combination of CBT and SSRI medications work better than either modality by itself.

<sup>1</sup>Coughlin, CG, Cohen S, et al. (2015) Journal of Child and Adolescent Psychopharmacology. Volume 25, Number x, pg 1-7

# Prevalence Studies:

## % of OCD patients who also have ADHD

- Heyman et al: 44%
  - Geller et al: 30% \*
  - Masi et al: 25%
  - Zohar et al: 10%
- 
- Family history studies show association of OCD and ADHD

# Where ADHD Presents Most in OCD

- Pure obsessionality (Pure-O)
- Hoarding
- Tics
- Tourette's Disorder
- Skin Picking
- Trichotillomania

# OCD and Attention (Deficit)

- Selective attention deficit, especially threat-related stimuli
- Unable to filter out irrelevant data, due to need for completeness
- Unable to filter out obsessive thoughts
- Difficulty with set-shifting
- Inflated sense of responsibility
- Cognitive deficits on visual memory tasks

# ADHD

- Spontaneous
- Impulsive
- Act/Speak Before Thinking
- Unaware of social cues
- Thrill Seeking
- Pleasure Seeking
- “Hunters”

# OCD

- Planful
- Compulsive
- Think Before Acting/Speaking
- Sensitive to Social Cues
- Overly Cautious
- Anxiety Avoiding
- “Farmers”

# How could ADHD be missed in OCD patients?

- ADHD rarely assessed in clinical settings
- Adult ADHD often unrecognized
- ADHD/OCD symptoms intertwined (clean room)
- “He does well in school.”
- “He can focus for hours on videogames/ TV.”
- Lack of hyperactivity
- Patient/Family view it as excuse or crutch
- ADHD behaviors may be labeled resistant
- Compulsions may be part of ADHD more than OCD
- Sensory defensiveness seen as perfectionism

# How could ADHD be missed in OCD patients?

- Distractibility might be seen as a positive
- Patient ashamed
- Hyperfocus mistakened as being over focused
- Feel inattention is secondary to OCD intrusive thoughts (e.g. compulsion to pay attention and not miss anything.)
- Labeled as obsessional anxiety

# How could OCD be missed in ADHD patients?

- Overfocusing mistaken as hyperfocus
- “He is too messy to have OCD.”
- Focus can be reinforcing
- Patient’s shame in OCD symptoms
- Unfinished projects due to OCD stuckness seen as ADD lack of follow through
- Perfectionism labeled as stubbornness, sensory defensiveness

# OCD+ADHD vs. OCD

Individuals with both OCD and ADHD:

- ↑ Social Problems
- ↑ Attention Problems
- ↑ Aggressive Behavior
- ↑ Externalizing Scores
- ↑ Social Phobia

# OCD+ADHD vs. OCD

Individuals with both OCD and ADHD:

↓ Social Competence

↓ School competence

↓ Internalizing Scores

↓ Family Cohesion

\* No difference in OCD symptoms

# OCD+ADHD vs. OCD

Individuals with both OCD and ADHD:

- ↑ Males
- ↑ Earlier OCD Onset
- ↓ Depression
- ↓ Clinical Improvement at 6 month follow-up

# OCD+ADHD vs. ADHD

↑ Attention Problems

↑ Social Phobia

\* No difference in depression, anxiety, ADHD

# Treatment Studies of OCD+ADHD

- No empirical treatment studies looking at the treatment of OCD+ADHD
- Masi et al (2006) found that OCD+ADHD subjects received mood stabilizers more frequently than OCD subjects.
- Rate of patients with OCD responding to SSRI's unaffected by ADHD diagnosis.

# Treatment of OCD+ADHD

- ADHD: Stimulants (Ritalin) may exacerbate OCD
- OCD: SSRI's not helpful for ADHD
- Likely need a combined pharmacotherapy
- ADHD may adversely impact CBT and BT for OCD

# Exposure Plus Response Prevention (ERP)

- The "**Exposure**" refers to confronting the thoughts, images, objects and situations that make a person with OCD anxious.
- The "**Response Prevention**" refers to making a choice not to do a compulsive behavior after coming into contact with the things that make a person with OCD anxious.

# ERP for OCD+ADHD

- Coaching is essential for motivation and accountability
- Might need to begin with a higher rung due to high stimulus threshold
- Can take longer to feel anxious due to distractibility
- Self-directed ERP should be planned for specific day and time

# Treatment Issues with OCD+ADHD

- Missed sessions, tardiness
- Inattentive in session
- Decreasing OCD symptoms may lead not only to other OCD symptoms “popping up”, but ADD impulsive symptoms

# Jason: Child with Fears and Tics

- 11 years old in the 5<sup>th</sup> grade. Parents divorcing. 6 y/o sister doing well in 1<sup>st</sup> grade.
- Shy, not very social but has one consistent playmate who has ADHD. “Sensitive for a boy.”
- Daydreams in class. Doesn’t finish homework or tests.
- Scattered, disorganized.
- Fidgety, restless
- “Not living up to his potential.”

# Jason

- Child Find assessment
  - Moderate reading problems
  - 4 out of 9 Inattentive criteria
  - 4 out of 9 Impulsive Hyperactive criteria.
  - Does not meet ADHD thresholds
- Pediatrician recommends a trial of stimulant medication anyway due to the level of impairment of performance.

# Jason

- Dramatically good response to Vyvanse 20 mg. The teacher remarks that she notices a big difference in his performance.
- The only side effect is a facial twitch and head turn that started with Vyvanse. Sometimes the twitch is accompanied by a grunting noise which embarrasses Jason. His sister makes fun of him.
- The twitching comes and goes; not always present.

# Tics / Tourette's

- Technically, Tourette's is only suppressible vocal and motor tics present > 1 yr. Most clinicians view it as a triad of tics + ADHD + OCD traits.
- Familial tic disorder is much more common.
- 9% of children have tics but in only 1% are the tics impairing or embarrassing. Uncommon in adults.
- Stimulants don't cause tics they bring out predispositions.

# Treatment of Tics

- Do nothing for 2 weeks. Tics naturally wax and wane.
- During those 2 weeks remove caffeine from diet. 50% of tics will resolve.
- Switch ADHD molecule. 40% Rule.
- Clonidine/guanfacine. Inconsistent research support.
- Metoclopramide (Reglan 5 mg tid)
- Atypical & traditional neuroleptics.

# Jason - Outcome

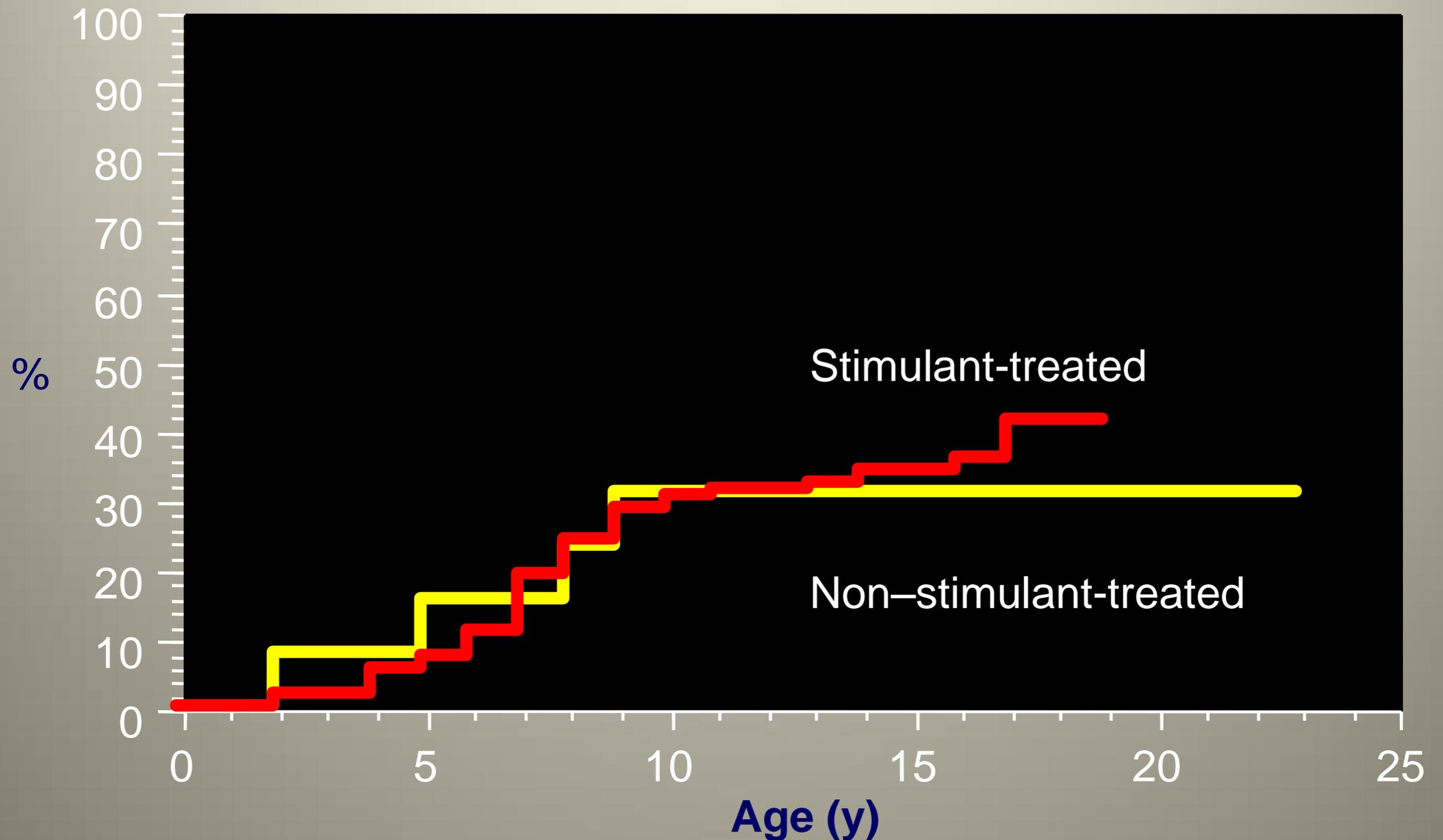
- Still had embarrassing tic on methylphenidate.
- Behavioral treatments such as habit reversal and self-monitoring were distracting and only partially helpful.
- Clonidine 0.2 mg was initially sedating but reduced the frequency of facial tics to less than one per hour. He learned to consciously suppress tics in social situations.
- The tic naturally resolved by the time Jason was 15 years old.

# Tics / Tourette's and ADHD

- Research indicates that stimulants do not cause tics, but may uncover the potential for tics in genetically predisposed individuals.<sup>1</sup>
- Some clinicians unnecessarily avoid first-line stimulants if there is a family history of tics.
- Most clinicians use stimulants since most research shows tics improve as often as they worsen with stimulant medications.<sup>2</sup>
- A trial of medication is usually warranted.

<sup>1</sup> Gadow et al. *Arch Gen Psychiatry*. 1999;56;330. <sup>2</sup> Law and Schachar. *JAACAP*. 1999;38:944.

# Onset of Tic Disorders in ADHD Stratified by Stimulant Treatment



Mass. General Hospital Study of ADHD. Spencer T., et al.

# Tics / Tourette's and ADHD

1. Do nothing while eliminating caffeine. Caffeine is the most potent trigger of tics.
2. Fine-tune stimulant dose to lowest dose that gives optimal benefit.
3. Switch to the other stimulant molecule.
4. Add an alpha agonist (clonidine or guanfacine).
5. Atypical neuroleptics (risperidone, olanzapine).
6. Traditional neuroleptics (haloperidol, pimozide).
7. Non-stimulant ADHD medication (atomoxetine).

# ADHD and Substance Abuse



# ADHD and Substance Abuse

- Risk is the same in ADHD vs. ADHD treated vs. non-ADHD through 15 years old
- Between 15 to 27 risk in untreated ADHD was 47% (vs. 15% in controls and treated).<sup>1</sup>
- Lifetime risk of SUD = 60% if ADHD is not treated. Co-existing ADHD and history of SUD occurs more in than half of cases.

<sup>1</sup> Wilens TE, et al. Pediatrics 2003; 111:179-185.

# ADHD and Substance Abuse

- ADHD is 5-10 times more common among adult alcoholics vs. non-ADHD.
- Among adults being treated for alcohol and substance abuse, the rate of ADHD is about 25%.
- Barkley et al (1990) found no diff among ADHD and non-ADHD with prevalence except with Hyperactive/Conduct Disorder type with cigarettes and marijuana
- Tercyak et al (2002) review finds that Hyperactive type more at risk with Conduct Disorder

# ADHD and Substance Abuse

- ADHD: More likely to try/experiment with drugs, but not necessarily become dependent
- Sullivan (2001) found shorter bridge between drug abuse and dependence
- Wilens et al (1997) found earlier onset of abuse with ADHD group

# ADHD Reasons for Using

- Wilens et al (2007):
  - Only 30 percent used to get high.
  - 70% for mood improvement, sleep etc.
- Increase dopamine (particularly marijuana)
- Increase focus
- Decompress from day or draining task/Stress relief
- Numb emotional pain
- Regulate mood

# **ADHD Risk Factors for Substance Abuse**

- Family History
- Conduct Disorder
- Mood Disorder (Depression, Bipolar Disorder)
- Anxiety Disorder
- Poor Impulse Control

# **Abuse of Stimulants by Pre-existing Abusers**

- 3 Studies of substance abusing people with ADHD found that stimulants for ADHD were largely irrelevant.
- Stimulants didn't make SUD worse or better.
- Stimulants were not abused by research subjects.
- Stimulants were not misused or abused by family members.

# Use What you Already Know

## Drugs of Abuse

- Are taken to “feel good”
- Create craving in users
- Appeal to a large and ready market
- Involve a “struggle” to get people to stop taking them

## ADHD Medications

- Dysphoric if over-dosed
- Are commonly forgotten by patients
- Are readily available, but long-term abuse is rare
- Involve a “struggle” to get people to take them

# Patient selection is key

- Euphoric recall vs. adaptive function.
- Life history of bad judgment is a relative contraindication.
- Self-loathing as a basis for abstinence (?)
- History of extensive “Huffing” is probably a contraindication to medication treatment.
- Social support for abstinence?
- Must be abstinent (how long?)

# Treatment Issues

- Treatment of ADHD with psychostimulants is probably *protective* against development of substance use disorders. (Wilens et al, 2003)
- Biederman et al (1997) found stimulants decrease prevalence of substance abuse in ADHD
- Wilens et al (1998) found recovery rates same but longer duration and higher relapse in ADHD (vs. non-ADHD)
- ADHD must be managed for successful sobriety
- Use of stimulants sometimes frowned upon in drug treatment
- Stimulants take up to an hour to raise dopamine levels.

# Treatment Issues

- No guidelines and very little research to guide clinical practice.
- No evidence of increased abuse potential in ADHD patients without Hx of prior SUD's.<sup>1</sup>
- Early Research by Riggs<sup>2</sup> is disappointing. Use of either Concerta or atomoxetine neither helps nor hurts.

<sup>1</sup> Kollins SH. Comparing the abuse potential of MPH . J Clin Psychiatry 2003; 64 [suppl 11]14-18.

<sup>2</sup> Riggs P, et al. (2011) Randomized Controlled Trial of Osmotic-Release Methylphenidate With Cognitive-Behavioral Therapy in Adolescents With ADHD and Substance Use Disorders JAACAP.. 50 (9) 903-914.

# Treatment of Comorbid ADHD and SUD

- Patient must be abstinent and working program of recovery. Otherwise can't assess effect of ADHD medications.
- How to choose between 1<sup>st</sup> and 2<sup>nd</sup> line agents?  
Adaptive function vs. euphoric recall  
Life history of good judgment vs. bad judgment

# Prudent Precautions

- 12 Step – Rational Recovery involvement
- Random unannounced drug screens
- Significant Other holds and dispenses daily meds ...at least initially.
- Relapse plan in place.
- Management of insomnia. #1 trigger of relapse.

**Someone who is supportive of sobriety  
is watching at all times**

# Case Study: Dick: School years

- Youngest of 6 children; father absent from home.
- Referred at 8 y/o for ADD but missed diagnostic cutoffs by one impairment. Mother refused medication because she was afraid of medication and “he could do it if he tried.”
- Difficulties with behavior due to impulsivity and “conflicts with authority figures.”
- High average IQ but poor academic attainment. “Did not live up to potential.”
- Dropped out in 10<sup>th</sup> grade. No GED.

# Dick: Late adolescence

- Refused to work until thrown out of the house at 23 y/o. “A slacker and proud of it.”
- Daily marijuana use since 15 y/o. “slows my brain down so I can sleep and so I can listen to people.”
- Gets drunk once a week. One DUI. Is certain he functions better when “high.”
- Multiple, short term, menial jobs. Usually fired for not showing up for work or due to conflicts or power struggles with the boss.
- Multiple, short, intense involvements (sports, computers, friends) with sudden disengagement when he loses interest or sense of challenge.

# Dick: Early adult years

- Lived with a succession of “mother-types” who managed his affairs and supported him.
- History of violence toward others when he felt rejected or criticized. Rages come without warning and pass quickly. “Bottle Rocket Temper.”
- Regretful and embarrassed afterward only to repeat. Domestic violence ended multiple relationships; two convictions for DV. A third conviction carries mandatory jail time.

# Diagnoses?

- Substance Use Disorder
- Borderline Character Disorder vs.
- Group 2 Personality Disorder (Narcissistic) vs.
- Group 3 (Passive Dependent)
- ADHD? still does not meet diagnostic thresholds.
- Many of the impairments of ADHD do not fit neatly into DSM diagnoses.
- Subthreshold patients are often as impaired as those that meet criteria.<sup>1</sup>

<sup>1</sup> Biederman J, et al (2018) J. Clin Psychiatry 79(5)

# Dick: Treatment Outcome

- Dick thwarted the treatment plan by not showing up for appointments, 12 step meetings, and couples counseling.
- He refused all medications because they were “poisons.”
- The more he was pressured about his behavior, the more aggressive and threatening he became to his girlfriend and her children. He was finally removed from the house by police.
- The ODD/CD turned out to be his most impairing diagnosis.

# **Complex, Comorbid, Contraindicated, and Confusing Patients**

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