

HOPE FOR DEPRESSION
RESEARCH FOUNDATION

- Lecture: *"ADHD, Substance Abuse and Depression: A Complex Clinical Conundrum"*
- Event: HOPE Seminar & Luncheon
New York - November 16th, 2009
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ADHD, Substance Abuse and Depression: A complex clinical conundrum

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Why not simply "stick" with one disorder?

- **It's more parsimonious**
 - Seems best to try to fit set of symptoms into one disease
- **Keeps things less complicated**
- **Patients do not want to see themselves as having multiple disorders**

Reality of Clinical Practice

- **Majority of individuals with ADHD patients have an additional psychiatric disorder**
- **A substantial percentage of individuals who come for treatment because of depressive symptoms, also have ADHD and Substance Abuse- often the ADHD goes unrecognized.**
- **Similarly, those with ADHD have higher rates of depression and Substance Abuse.**
- **Not recognizing comorbidity leads to less successful treatment outcome.**

Persistence of ADHD Through the Lifespan

- The estimate prevalence of ADHD in school-aged children in the United States is 8%-10%¹
- For children diagnosed with ADHD, the disorder and associated impairments persist in up to 80% of adolescents and in up to 65% of adults²
- A rigorous study in > 3000 US adults estimates a 4% prevalence of ADHD in adults³

1. American Academy of Pediatrics, Pediatrics, 2000, 105-151
2. Dulcan et al., J Am Acad Child Adolesc Psychiatry, 1997, 36(Suppl 10): 855
3. Kessler RC et al., Am J Psychiatry, 2006, 163, 715-723

Elements of Making an ADHD Diagnosis

- **6 Symptoms of Hyperactivity/Impulsivity and/or Inattention**
 - Hyperactive-impulsive type
 - Inattentive type
 - Combined type
- Symptoms before the Age of 7
- Occurs in 2 or more settings
- Impairment
- Not better explained by another psychiatric disorder

Symptoms of Hyperactivity Often Manifest Differently in Adults

Hyperactivity often changes to inner restlessness

DSM-IV Symptom Domain	Common Adult Manifestation
• Squirms and fidgets	• Workaholic
• Can't stay seated	• Overscheduled/overwhelmed
• Runs/climbs excessively	• Self-select very active job
• Can't play/work quietly	• Constant activity leading to family tension
• "On the go"/"Driven by motor"	• Talk excessively
• Talk excessively	

Symptoms of Impulsivity Often Manifest Differently in Adults

Impulsivity in adulthood often carries more serious consequences

DSM-IV Symptom Domain

- Blurts out answers
- Can't wait turn
- Intrudes/interrupts others



Common Adult Manifestation

- Low frustration tolerance
- Quitting jobs
- Ending relationships
- Driving too fast
- Losing temper
- Addictive personality

American Psychiatric Association 1994, 83-85, ADHD in Adulthood 1999, Weiss, Hechtman and Weiss
<http://www.i-workshops.com/search/default.asp>

Symptoms of Inattention Often Manifest Differently in Adults

DSM-IV Symptom Domain

- Difficulty sustaining attention
- Doesn't listen
- No follow through
- Can't organize
- Loses important items
- Easily distractible, forgetful



Common Adult Manifestation

- Difficulty sustaining attention
 - Meetings, reading, paperwork
- Paralyzing procrastination
- Slow, inefficient
- Poor time management
- Disorganized

American Psychiatric Association 1994, 83-85, ADHD in Adulthood 1999, Weiss, Hechtman and Weiss
<http://www.i-workshops.com/search/default.asp>

ADHD and Comorbidity in Adults

Symptom domains

- Hyperactivity
- Inattention
- Impulsivity

+

Lead to

Psychiatric comorbidities

- Anxiety and mood disorders
- Disruptive behavior disorders (conduct disorder and oppositional defiant disorder)
- Substance Use Disorders

Functional impairments

- Low self-esteem
- Accidents and injuries
- Legal difficulties

School/Work

- Academic difficulties, underachievement
- Employment difficulties

Home

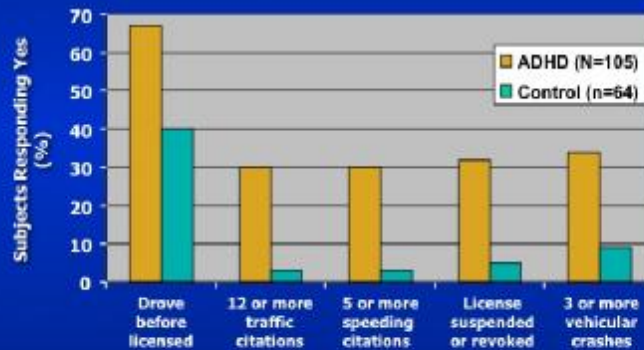
- Family stress
- Parenting difficulties

Social

- Poor peer relationships
- Socialization deficit
- Relationship difficulties

Traffic Violations and MVA Among Young Adults with ADHD

Negative Driving Outcomes From a Driving History Interview



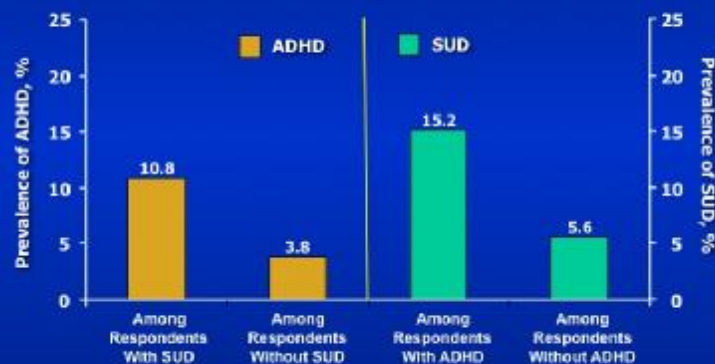
Barkley RA, et al. *J Int Neuropsychol Soc*, 2000, 8:655-72

ADHD and Comorbid Psychiatric Disorders

- **ADHD is often comorbid with other psychiatric disorders**
 - Antisocial personality disorder
 - Anxiety disorders
 - Bipolar disorder
 - Intermittent explosive disorder
 - **Substance Use Disorder**
 - **Major depressive disorder**

Comorbidity of Adult ADHD with SUD in Adults

National Comorbidity Survey Replication (N=3199)



Kessler RC et al. *Am J Psychiatry*, 2008, 163:716-723

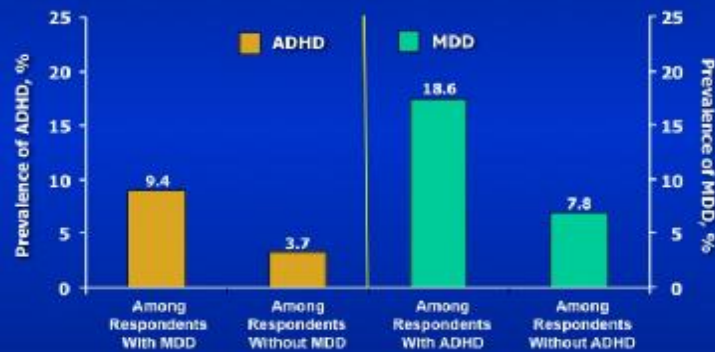
ADHD Influence on SUD

- Earlier-onset SUD
- More severe SUD
- Poor SUD treatment retention
- Lower rates of remission
- Longer course of SUD

Carroll KM, Rounsaville BJ. *Psychiatr Serv*, 2003, 54:333-339, Levin FR et al. *Drug Alcohol Depend*, 1994, 52:19-25, Schubiner H et al. *J Clin Psychiatry*, 2000, 61:244-251, Wilens T et al. *Am J Addict*, 1994, 7:156-163

Comorbidity of Adult ADHD with MDD in Adults

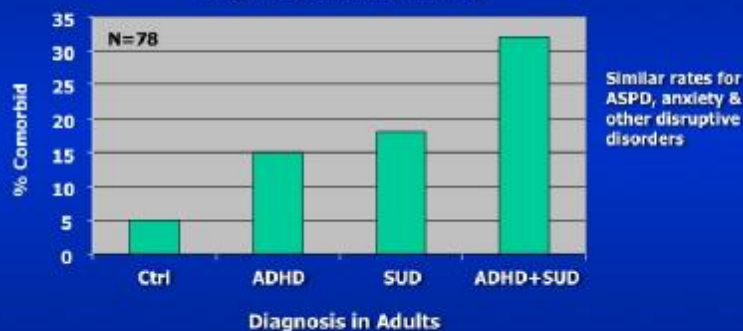
National Comorbidity Survey Replication (N=3199)



Kessler RC et al. *Am J Psychiatry*, 2008, 163:716-723

Increased Rates of Other Psychiatric Comorbidity in Adults with ADHD + SUD

Major Depression (lifetime)



Wilens TE et al. *Am J Addict*, 2005, 14:319-327

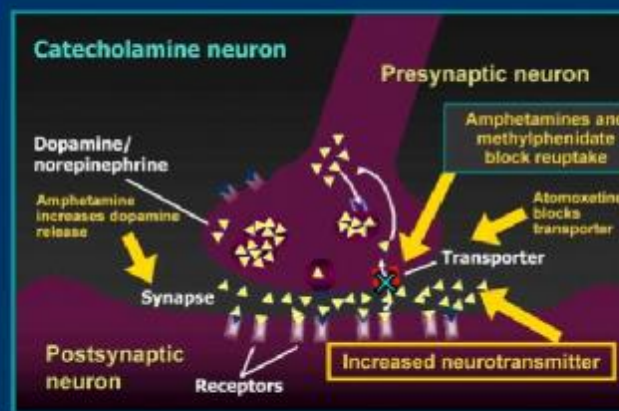
Challenges of Treatment among Individuals with ADHD and Depression

- **Treat MDD without treating ADHD**
 - Inattention persists
 - Dysfunction persists
- **Treat ADHD without treating MDD**
 - Mood problems persists- but not always
- **Treat both**
 - First treat more severe disorder- causing most dysfunction or of greatest clinical concern
 - Target combination therapy
 - Fear of stimulant abuse, especially in those with history of substance or alcohol abuse/dependence

Issues in Treating Bipolar Disorder and ADHD

- **Can stimulants worsen, or precipitate mood cycling?**
 - Yes, but so can antidepressants
 - In patients with an effective mood stabilizer regimen on board, addition of stimulant often safe and helpful
 - Proceed with caution and warn patients and family members what to look for (both potential risks, and benefits)

Mechanism of Action of Common Treatment for ADHD



Stimulants Used in the Treatment of ADHD

- **Psychostimulants are the most studied medications used to treat ADHD**
- **Extended-release preparations last 8-12 hours**
 - Eliminate possibility that patient will forget midday dose
 - Reduce peak and trough adverse effects of stimulants
 - ◆ Headaches
 - ◆ Moodiness
 - ◆ Eliminate afternoon wear-off and rebound
 - ◆ Less potential abuse- long-acting preparations make them hard to snort/inject and less positive subjective effects

Wilens TE, Dodson W. *J Clin Psychiatry*. 2004; 65:1301-1331

Stimulant Treatment: Safety and Side Effects: What to Watch For

- **Cardiovascular effects**
 - Stimulants increase pulse, blood pressure
 - Take careful cardiac history, review of systems
 - Concomitant medications (caution re: beta blockers)
 - Monitor blood pressure at baseline and during treatment
- **Increased agitation or anxiety**
- **Increased mood lability**

Medication Treatment of ADHD

- **Non-stimulants**
 - Bupropion, other noradrenergic antidepressants
 - Atomoxetine (FDA-approved in adults)
 - ?Modafinil
 - Clonidine, guanfacine

Does stimulant treatment in children increase the risk of substance abuse?

- **Simple Answer:**

- NO
- Pharmacotherapy for children with ADHD may reduce risk for SUD in ADHD youths and certainly does not increase the risk
- Pharmacotherapy associated with better school performance and less likelihood of having to repeat a grade. (Also recent study suggests less likely to develop anxiety disorder or depression)

What about treating ADHD in substance abusing adolescents or adults?

- **No evidence that treating ADHD with long-acting stimulant in past substance abusers increases risk for return of past substance abuse. However might be cautious with past prescription stimulant abuser**
- **Little evidence, to date, that treatment of ADHD in active substance abusers is effective for reducing SUD, although may help ADHD**
- **However, importantly, most clinical trials with substance users do not suggest that stimulants worsen substance use disorders**
- **Treatment of comorbid individuals requires management of SUD, and other comorbidities**

Role of Behavioral Therapy

- **For Depression: CBT, IPT, other therapies effective on their own or as adjunct to medication**
 - Address low self-esteem, self-criticism, pessimism that may accompany ADHD
- **For ADHD: behavior therapy can be helpful (psychoeducation, focus on coaching organization, social skills, increasing structure)**
 - NIMH-funded MTA study showed behavioral therapy (in children) effective for secondary outcomes of social functioning, but not for core symptoms of ADHD
 - Medication (mainly stimulants) effective for core symptoms
 - For adults, psychoeducation, cognitive therapy and coaching may be especially important

Conclusion

- **ADHD**

- ADHD affects millions of people of both genders
- ADHD persists through adolescence and adulthood in a high percentage of cases
- ADHD can have negative impact on multiple areas of functioning
- ADHD is frequently comorbid with other psychiatric disorders including Substance Use Disorders and Depression
 - ◆ Therefore, look for ADHD in patients presenting for treatment of depression, substance use disorders
- ADHD is significantly undertreated in adults

Conclusions

- **Generally, treat the primary disorder, then secondary disorders**

- At times, if do not get a reasonable clinical response, consider treating the other disorder or provide combined pharmacotherapy
- Role for behavioral therapy-
- Stimulants are relatively safe and most effective treatment for ADHD
- Treating ADHD in substance abusers is complex and requires close monitoring of both disorders