

## Adult ADHD: Assessment and Treatment

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## Adult ADHD

- Prevalence of adult ADHD is approximately 4%
- Only about 11% actually receive treatment
- Closer to 1:1 ratio of male to female compared to childhood ratio of 3:1
- Impairment commonly persists into adulthood although the manifestation of it may change
- Co-exists with other conditions-keep your eyes open

## Attention Deficit Hyperactivity Disorder: What is it?

A disorder:

- of *performance*, not skill;  
Not doing what you know
- of *dysregulation*, not deficit:  
A delay in the development of inhibition of behavior or control of impulses
- “You **don’t** mean to do the things you **do** do, and you **don’t** do the things you **mean** to do”. *Driven to Distraction* Hallowell and Ratey

## Say that again?!

- Difficulty sustaining attention
- Difficulty with impulse control or inhibition of impulses
- Excessive activity
- Difficulty following rules and instructions
- Excessive variability in their responses to situations, particularly doing work

## ADHD versus ADD What’s the difference?

- ADHD, primarily inattentive type
- ADHD, primarily hyperactive/impulsive type
- ADHD, combined type
- ADHD, Not otherwise specified

## DSM-IV Criteria: Inattention

- Often fails to give close attention to details
- Avoids tasks which require sustained mental effort
- Difficulty sustaining attention in tasks or play activities
- Loses things
- Does not seem to listen
- Easily distracted by external stimuli
- Does not follow through on instructions
- Forgetful in daily activities
- Difficulty organizing

## Difficulty Sustaining Attention

- A shorter attention span but keeping attention on something over a long period of time is the most difficult
  - No trouble distinguishing important from irrelevant
  - ADHD individuals look away or are drawn away more easily to more rewarding activities.
  - Get bored or lose interest in their work much faster
  - Seem to be drawn to the most rewarding, fun or reinforcing aspects of any situation
  - Live more in the Here and Now: opt for doing a little work now for a small but immediate reward rather than doing more work for a larger reward not available until later: a problem with delayed gratification

## DSM-IV Criteria Hyperactive-Impulsive

- Blurts out answers before questions are asked
- Difficulty waiting in lines or awaiting turn
- Often interrupts or intrudes on others
- Often talks excessively
- Fidgets with hands or feet; squirms in chair
- Leaves seat in classroom
- Runs about or climbs excessively (restless)
- Has difficulty playing quietly
- "On the go" or acts as if "driven by a motor"

## Difficulty Controlling Impulses

- A decreased ability to inhibit behavior or to show impulse control
  - Blurt out comments
  - Respond to what others say or do to them or even their own ideas on impulse
  - Take shortcuts to perform boring tasks
  - Take more risks
  - Money management problems
  - Impulsive thinking
  - Hyper-responsive: behave too much

## Difficulty Following Instructions and Inconsistent Work

- An inability to follow through on instructions and adhere to rules RULE GOVERNED BEHAVIOR
- A Language problem?
  - Individuals with better developed language and verbal skills are usually much less impulsive and more reflective in performing tasks
  - Self directed speech is principally involved in controlling behavior
- ADHD individuals can do the work but they cannot maintain the consistent pattern of work productivity the way others can.
- Consistent work productivity demands the ability to inhibit impulses to engage in other, more immediately fun or rewarding activities

## DSM-IV Criteria

Some symptoms that cause impairment must have been present before age 7 years.

Some impairment must be present in at least two settings

The disturbance is not more attributable to other mental disorders (e.g. mood disorder, anxiety, etc.)

There must be clear evidence of clinically significant impairment with social, academic, or occupational functioning

## ADHD Touches All Aspects of Life

### Academic and/or Employment Problems

More likely to have repeated a grade in school

May underperform academically and in the workplace

Tend to change jobs often or be unable to keep a job

Earn less or struggle financially

### Manifestations

- Poor time management
- Trouble initiating and completing tasks
- Procrastination
- Trouble multitasking
- Working long hours
- Selecting active jobs or self employment
- Avoiding tasks that demand attention
- Require support staff

## ADHD Touches All Aspects of Life

### Driving

- More likely to have motor vehicle accidents and the accidents are likely to be more severe
- Tend to have more moving violations
  - Speeding
  - Failing to mind traffic signals
  - False braking

### Health and Safety

- More accident prone and more likely to require interventions
- More likely to have unwanted pregnancies or sexually transmitted diseases
- More likely to use tobacco and caffeine heavily
- If untreated, have increased risk for substance abuse

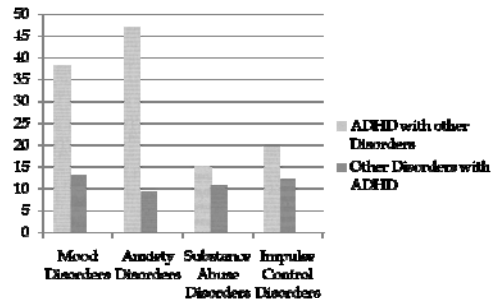
## ADHD Touches All Aspects of Life

- Relationships and Social Functioning
  - Higher rates of divorce and separation than the general population
  - More likely to experience marital stress
  - Struggle more in the parenting role
  - Fewer enduring friendships
  - Fractured relationships with parents and siblings
  - Twice as likely to be arrested
  - Suffer from low self esteem-the "Moral Diagnosis"

## ADHD Assessment

- The assessment process involves gathering of information from a variety of sources
  - Youth: parents or other adults; school records
  - Adults: partners, employers, educators
- "ADHD should not be diagnosed when the primary explanation of symptoms may be better accounted for by another mental disorder"
  - Further intellectual testing
  - Assessment for other mental health conditions

## Co-morbidity Rates



## The Relationship Between ADHD and Co-morbid Disorders

- Some co-morbid disorders may be a direct reflections of the ADHD symptoms and their impact (ODD, some anxiety and mood disorders)
- Risk for certain co-morbid disorders is increased by ADHD (CD, other disorders of impulsivity, SUDs)
- Other co-morbid disorders are likely genetic variants of ADHD (TS, ADHD+CD, ADHD+BPD)
- Several disorders share environmental risk factors with ADHD so would expect co-morbidity (CD, depression, SUDs)

## Why Focus on Co-morbidity in Adults with ADHD?

ADHD remains highly co-morbid across the lifespan, possibly of a different nature in adolescents and adults.

Impairment from co-morbid conditions increases with age so prevention is a goal of treatment.

Impairment from co-morbidity will guide treatment:

- ✧ Co-morbidity may alter response to ADHD therapy
- ✧ Co-morbid conditions often require treatment independent of, and distinct from, therapy for ADHD
- ✧ Co-morbidity may alter the sequence of interventions

## Rating Scales

- Useful, easy to administer assessment tools
- Available for collaterals and self
- Best ones are normed to quantify how the behavior deviates
- Can be helpful in assessing and monitoring response to treatment
- Are NOT used alone to make or refute a diagnosis

## Rating Scales

### Adult

- Adult ADHD Self Report Scale (ASRS-v1.1)
  - An 18 item checklist
  - A 6 question screener: the 6 questions felt to be most predictive of ADHD
- Connors Adult ADHD Rating Scale (CAARS)
- Wender Utah Rating Scale
- Brown Adult Attention Deficit Disorder Scale (BAADS)
- Barkley Current Symptom Scale

## Additional Assessment Measures

- **Psychological testing**-usually done to look for comorbidities or to establish alternative diagnoses
- **Neuropsychological testing** –not diagnostic for ADHD in themselves but can provide information regarding the nature and severity of deficits and areas of strength
  - Continuous Performance Tests
  - Wisconsin Card Sorting Test
  - Stroop Word-Color Association Test
  - Test of Working Memory

## ADHD Treatment Planning

### Goals

- Reduce major symptoms of ADHD
- Improve functioning in areas of impairment
- Treat co-morbid conditions

### Plan

- Address individual target symptoms
- Use rating scales and/or daily report cards at baseline and to monitor progress
- Reassess and modify periodically

## Pharmacologic Treatments

- **Stimulants**
  - Ritalin, Dexedrine, Adderall and long acting preparations (Metadate, Concerta), generics too
- **Atomoxetine (Strattera)**
- **Antidepressants**
  - Bupropion (Wellbutrin)
  - Tricyclics (Desipramine, Imipramine, Nortriptylene)
  - Venlafaxine (Effexor)
- **Alpha-adrenergic agents**
- **New developments**

## ADHD: Stimulants

- Used for past 50 + years
- Vast majority of controlled studies have been in school-age children
- Response rate to stimulants is about 70%, even in adults
- There may be response differences between the stimulants (methylphenidate vs. amphetamine salts)

## ADHD: Stimulants

- Side effects
  - Decreased appetite
  - Insomnia
  - Headaches
  - Stomach ache
  - Irritability/Moodiness
  - Tics
  - Rebound, "Wear-off" effects
  - Increased heart rate and blood pressure
  - Sudden death\*

## Substance abuse and Stimulants

Studies of ADHD patients **do not** support the fear that being prescribed stimulants will lead to substance abuse

- Studies supporting the abuse potential of stimulants have looked at other populations
- Several studies including a 13 year longitudinal study indicate that stimulant treatment of ADHD protects **against** future substance abuse
- Stimulant diversion is cause for concern

## ADHD: Atomoxetine

- The first FDA-approved non-stimulant
- For those who cannot tolerate stimulants or where comorbidities prevent their use
- Atomoxetine meets the desired goals of providing symptom control throughout the waking day without producing insomnia
- Atomoxetine lacks the abuse and diversion potential so problematic with stimulants
- Atomoxetine appears to have "carryover effect" remaining effective in the evening and into the next day, ie no AM delay

## ADHD: Atomoxetine

- Side effects
  - Stomachache
  - Nausea, loss of appetite
  - Dizziness
  - Dry mouth
  - Constipation
  - Sexual dysfunction
  - Sleepiness
  - *Liver toxicity*
  - *Suicidal thinking*
- But does it work?

## ADHD: Antidepressants

- **Bupropion (Wellbutrin; Budeprion)**
  - Best studied
  - Effectiveness usually less robust than the stimulants
  - Good choice if co morbid depression
  - Once daily to three times daily dosing, but longer duration of action than stimulants
  - Risk for seizures
  - Suicidal thoughts

## ADHD: Antidepressants

- **Tricyclics (Desipramine, Imipramine, Nortriptylene)**
  - Effectiveness not as good as stimulants, but longer duration of action
  - Side effects can be problematic, esp. cardiac toxicity
  - Accidental and impulsive overdoses can be lethal
  - Helpful for co morbid depression or anxiety; sleep problems

## ADHD: Antidepressants

- Venlafaxine (Effexor)
  - Effectiveness not as robust as stimulants
  - Helpful in treating co morbid depression and anxiety
  - Side effect profile like the SSRIs-generally safe, modest
- No case studies or randomized clinical trials with either duloxetine (Cymbalta) or desvenlafaxine (Pristiq)

## ADHD: New Developments

- **Daytrana**-a methylphenidate patch
  - Applied in the AM, removed after 9 hours
- **Vyvanse**- first prodrug **lisdextroamphetamine**
- **Provigil (modafinil)**:a medication used for Narcolepsy studied aggressively for ADHD
  - May be used once a day or twice a day
  - Does not affect reinforcement pathways; little risk for misuse or diversion
  - FDA approval was denied

## Psychosocial Treatments

- Primary goal is to help ADHD sufferers gain a better understanding of their disorder and how it affects them and ultimately help them regain control over their lives using this knowledge
- Focus on teaching
  - How to solve problems they encounter day to day
  - How to set and reach goals
  - How to deal with the feelings of depression and anxiety that often come with this disorder
- Medications relieve the core symptoms of ADHD

## Psychosocial Treatments

- Individual Supportive Psychotherapy
  - Helps ADHD sufferers gain insight into their disorder and help them to understand that much of their daily life hardships is due to ADHD and not flaws.
  - Helps to build self-esteem and have a place to discuss their worries and anxieties-therapist as an ally
  - Identify and deal with any problems or crises that need immediate attention or those more ongoing
  - The therapist provides valuable problem-solving and coping strategies patients might not have thought of implementing on their own.

## Psychosocial Treatments

- Cognitive Behavioral Therapy
  - Cognitive therapy
    - Shows patients how certain thinking patterns can be the cause of undesirable symptoms associated with ADHD
    - Focuses on replacing negative mind-sets with positive and realistic thinking
  - Behavioral therapy
    - Arms ADHD patients with strategies that will make immediate differences in their lives
    - Teach how to weaken the impulse to behave in certain habitual and destructive ways
    - Work to instill good planning and organizational skills in their patients

## Psychosocial Treatments

- Coaching
  - Help clients identify their goals and then devise a personalized "game plan" for achieving those goals
  - Emphasizes actions
  - Coaches employ a more hands-on approach-giving reminders, motivation and honest feedback on their clients' progress, and if necessary, "tough love" to keep them on track
  - Clients are usually in regular contact with their coaches outside scheduled sessions
  - An intervention that may need to wait if clients are suffering with severe emotional or psychological problems

## Psychosocial Treatments

- Marital and Family Therapy
  - Addresses “emotional baggage” the ADHD sufferer may be bringing into a marriage and family
  - Helps family members better understand the condition, vent frustration, alleviate blame and work towards solutions and collective healing
- Group Therapy
  - A source of education, support and acceptance for ADHD sufferers
  - Social reciprocity-make friends, get support and provide support
  - Direct evidence that people with ADHD are just as intelligent, engaging, creative, attractive as anyone

## Summary

- ADHD is a neurological developmental disorder that occurs in childhood but may very well persist into adulthood.
- ADHD can cause co-morbid disorders and is found in individuals with other mental health disorders.
- Medication is the mainstay of treatment. Rating scales can help with diagnosis and follow up
- Psychosocial therapies provide education, support and teach strategies to deal with real life challenges.