

ADHD IN ADULTS

**Dr. A/Moneim A/Hakam
Sr Consultant Psychiatrist
Hamad Medical Corporation**

1. Adult ADHD Stats

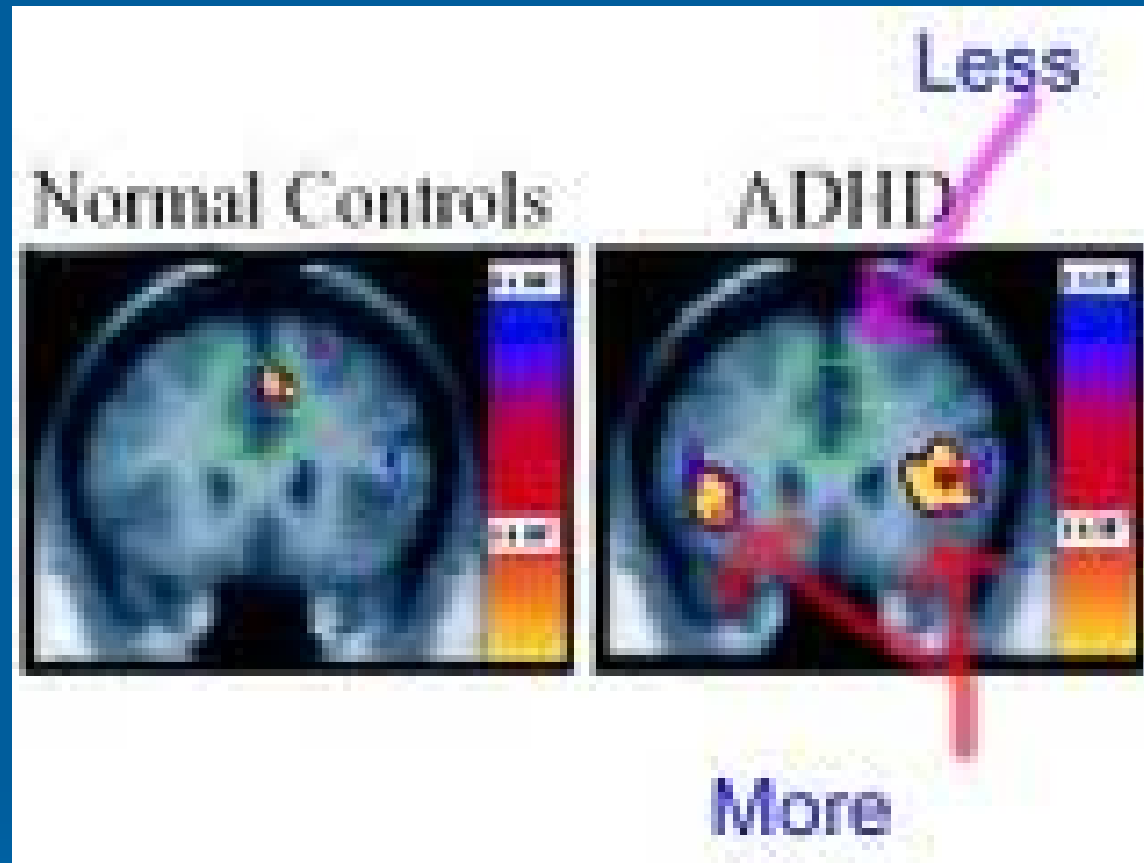
- ADHD afflicts 3% to 5% of school-age children and an estimated 30% to 70% of those will maintain the disorder into adulthood.
- Prevalence rates for ADHD in adults are not as well determined as rates for children, but fall in the 1% to 5% range.
- ADHD affects males at higher rate than females in childhood, but this ratio seems to even out by adulthood.

2. Common Behaviors and Problems of Adult ADHD

- Chronic lateness and forgetfulness
- Anxiety
- Low self-esteem
- Employment problems
- Difficulty controlling anger
- Impulsiveness
- Substance abuse or addiction
- Poor organization skills
- Procrastination
- Low frustration tolerance
- Chronic boredom
- Difficulty concentrating when reading
- Mood swings
- Depression
- Relationship problems

3. How is adult ADHD diagnosed?

- A questionnaire to determine if the adult had ADHD in childhood.
- School report cards, if available, to look for comments about behavior problems, poor focus, lack of effort or underachievement relative to the student's potential.
- Discussion with the parents to determine any symptoms during childhood.
- A complete history from the adult with the symptoms. He or she may self report symptoms in childhood.
- The developmental history would be consistent with ADHD, including evidence of problems with peers, other delays such as bed wetting, school failure, suspensions, or special interventions such as sitting in front of the class, etc.



fMRI in ADHD

One study compared adults diagnosed with ADHD with healthy controls in a conflict task (Bush et al., 1999). The control participants showed more anterior cingulate cortex activation than those participants with ADHD, probably due to higher attentional efficiency. While the latter group performed only slightly worse than controls, they appeared to activate an entirely different network of brain areas than that seen in the controls: Whereas control

Prevalence

➤ Childhood ADHD

.Children 3-17ys “ever diagnosed”ADHA

-5.3 million total

-8.6% of all children

-12% of boys

-5.3% of girls

➤ Adult ADHD

- .Population- based studies

 - 4%- 5%

- .estimates from longitudinal studies

 - 3.3%-5.3%

- .15 million US adults

ADHD Screening

- Why should we look for ADHD?
- Where should we look for it?
- What it will look like when we find it?
- How can we be sure not to miss it?

Why Screen for ADHD?

High prevalence:

- 6%-8% in school-age population
- 4%-5% in adults

High clinical prevalence

- 20% anxiety patients with anxiety
- 8x depression risk in children
- 70% depressed children had ADHD

- Severe psychiatric dysfunction
- 87% 1 psychiatric co-morbidity , 56% 2
- Worsen outcomes in anxiety ,depression ,learning disability, mood and medical disorders
- High morbidity
- -depression risk:35%-60%
- -anxiety risk:40%-60%
- -2x injury rate -2x divorce -48% unemployment

- High mortality
- -suicide rate 2x to 3x baseline
- .16% ADHD adults have history of attempt -1000 deaths per year
- -MVAs 3x to 4x
- 4000+ deaths /yr
- 500,000 injuries

Where to screen for ADHD

- Universal screening is appropriate
 - -prevalence of 5%-10%
 - -accessible , effective treatment
 - -cost-effective screening available
 - Selective screening often practiced
 - -anxiety and depressed patients esp. partial responders
 - -bipolar patients 70%-96% prevalence
- ADHD

Where to screen for ADHD

- Smokers
- Past or current substance abuse
- Crisis/unplanned pregnancy
- > 2 MVAs
- > 2 sexual transmitted diseases
- Multiple injuries , accidents , fractures
- Head injuries
- Allergy , asthma

Diagnostic Criteria : Adults

.Challenges in Adult Diagnosis

- DSM-IV Sub-categories are written to children's symptoms

- "Core symptoms" should persist if they're truly "core"

- .Symptomatic persistence of 35%-60%

- .Impairments persist into Adulthood in at least 80% of childhood cases

➤ Hyperactive symptoms

.symptoms are less common , less impairing in adulthood

.35% persistence from childhood .

Inattentive

.greater proportion ADHD in adults than kids

.95% persistence into adulthood.

.New cases of inattetion appear after age

Barkley Adult Criteria

- Russell Barkley has proposed the following adult symptom core set:
- -Easily distracted by external stimuli
- -Makes decisions impulsively
- -has difficulty stopping activities when they should do so
- -start a task without reading or listening to directions carefully

- Shows poor follow-through on promises or commitments
- Has trouble doing things in their proper order or sequence
- More likely to drive a motor vehicle much faster than others
- Has difficulty sustaining attention in tasks or leisure activities

- In addition to the symptom criteria
 - some impairing symptoms were present before age 16 years
 - impairment present in > 2 settings
 - there must be clear evidence of impairment in functioning
 - the symptoms are not better accounted for by another mental disorder

- A strong family history of ADHD
- A physical exam. To rule out medical or neurological illness.
- EEG,CT, or MRI
- Psychological testing



5. Symptoms of ADHD take on different forms in adults

	<u>DSM-IV characteristics in Children.</u>	<u>In Adults</u>
❖ Hyper-activity	<ul style="list-style-type: none">- squirming- fidgeting- inability to stay seated- running and climbing excessively- inability to play and work quietly.- talking excessively.	<ul style="list-style-type: none">- workaholic tendencies.- being overscheduled and overwhelmed.- self selecting very active jobs.- constantly active- talking excessively.

6. Symptoms of ADHD take on different forms in adults (contd..)

	<u>DSM-IV characteristics in Children.</u>	<u>In Adults</u>
❖ Impulsivity	<ul style="list-style-type: none">- blurting out answers.- not waiting his/her turn.- intruding in or interrupting others.	<ul style="list-style-type: none">- low frustration tolerance.- short temper- quitting jobs abruptly.- ending relationships.- driving too fast.- addictive personality.

7. Symptoms of ADHD take on different forms in adults (contd..)

	<u>DSM-IV characteristics in Children.</u>	<u>In Adults</u>
❖ Inattention	<ul style="list-style-type: none">- difficulty in sustaining attention.- not listening.- not following through.- inability to organize.- losing important items.- easily distractible.- forgetful	<ul style="list-style-type: none">- showing incredible procrastination.- slow-inefficient- very poor time-management skills.- very disorganized.

8. School-Related Impairments Linked to Adult ADHD

- Had a history of poorer educational performance and were underachievers
- Had more frequent school disciplinary actions
- Had to repeat a grade
- Dropped out of school more often.

9. Work-Related Impairments Linked to Adult ADHD

- Change employers frequently and perform poorly.
- Have had fewer occupational achievements, independent of psychiatric status.

10. Social-Related Impairments Linked to Adult ADHD

- Have a lower socioeconomic status
- Have driving violations such as: be cited for speeding; have their licenses suspended; be involved in more crashes; rate themselves and others as using poorer driving habits.
- Use illegal substances more frequently.
- Smoke cigarettes
- Self-report psychological maladjustment more often.

11. Relationship-Related Impairments Linked to Adult ADHD

- Have more marital problems and multiple marriages.
- Have higher incidence of separation and divorce.

12. Behavioral Treatments for Adult ADHD

- Individual cognitive and behavioral therapy to enhance self-esteem.
- Relaxation training and stress management to reduce anxiety and stress.
- Behavioral coaching to teach the person strategies for organizing home and work activities.
- Job coaching or mentoring to support better working relationships and improve on-the-job performance.
- Family education and therapy.

13. Psychosocial Behavior Management Strategies

- Take Medications as Directed.
- Organize yourself.
- Control impulsive behavior.
- Minimize distractions.
- Find constructive outlets for excess energy.
- Ask for help.

Medications

- Stimulants
 - Methylphenidate:
 - Ritalin, RitalinSR,
 - Ritalin-LA
 - Concerta
- Non-stimulants
 - Atomoxetine
 - Anti-Depressants

- Antidepressant medications are non-stimulants used for patients who do not respond to or cannot tolerate stimulant medications.
- Atomoxetine was the first non-stimulant medication approved by the FDA for the treatment of ADHD in both adults and children, and the first drug ever to receive FDA approval for treatment of ADHD in adults.
- Atomoxetine is a highly specific norepinephrine reuptake inhibitor with minimal affinity for 5-HT or dopamine transporters and neuronal receptors.
- Atomoxetine has been shown to be more efficacious than placebo and similar to methylphenidate in ameliorating ADHD symptoms and is generally well tolerated.



- Side effects for atomoxetine can include upset stomach, decreased appetite, nausea and vomiting, dizziness, tiredness, and mood swings.
- Pharmacotherapy is a central element in the treatment of ADHD, and some studies have shown it to be more effective than behavioral treatment in reducing the symptoms of ADHD.
- Stimulants increase dopamine and norepinephrine levels in the synapse, ameliorating symptoms associated with ADHD in about 70% of patients.
- Side effects from stimulants can include hypertension, insomnia, headaches, weight loss or anorexia, tics, anxiety, and dysphoria.
- When prescribed and taken appropriately for the treatment of ADHD, stimulant medication is not addictive. Care should be taken when using stimulants to treat patients with a comorbid substance abuse disorder.

Prevalence of ADHD with Anxiety:

- 97 consecutive patients in Anxiety disorders clinic.
- Adult ADHD self-report scale – symptom checklist. A structured clinical interview for DSM-IV (include Mini-International Neuropsychiatric Interview [MINI](#))
- 32 of the 97 adults (33%) met MINI–criteria 29 of the 88 (33%) who completed self reported checklist.
- Only 9 of the 32 (28%) had been identified, 2 of 9 (22%) had ever been treated, 1 person was currently receiving treatment.
- Most individuals identified as having ADHD know they've had these symptoms, but no one has made the formal diagnosis.
- It is hoped that the DSM V will have better criteria to diagnose this condition.

13. Treating ADHD in adult with comorbid Mood disorders.

- Depression and ADHD
 - Stimulant monotherapy
 - Antidepressants and treatment combinations.
 - Venlafaxine
 - Bupropion
 - Desipramine
- Bipolar Disorder and ADHD
 - 4 week double blind study, 5 mg short acting amphetamine twice daily in 30 patients.
 - 6 week open –label study, Bupropion 200 mg twice daily in 36 patients.
 - Anti-depressant and stimulant should be used with caution.
 - Metanalysis has suggested that stimulant are more effective than non-stimulants.
greater effect size 0.91 → immediate
 0.95 → long acting
 0.62 → non-stimulant

CONCLUSION

- Many children with untreated ADHD grow into adults suffer from lifelong work and relationship problems ,co-morbidities and low self-esteem
- ADHD which historically thought of as a childhood syndrome, is now recognized as an adult disorder.
- Clinical trials are not only beginning cull out the distinct symptoms of ADHD in adults ,but also developing courses of treatment uniquely suited for adult patient.

Cont,

- Since the symptoms of ADHD in adults are associated with significant functional impairment, future clinical trials will need to determine whether the remission of symptoms that occurs with medications can lead to improvement in functioning.

ADHD is a Disability not a Disease



➤ MARLON SHIRLY

Amputee age of 5
Paralymics golden
medal winner in USA
100m and 200m
sprint

World records holder in
men`s 100m sprints
for single amputee-
10.97sec

Thank You

