# Managing ADHD in Adults in your Practice

Nick Kates MBBS, FRCPC, MCFP(hon)







#### **Presenter Disclosure**

**Presenter: Nick Kates** 

#### Relationships with financial sponsors:

- Any direct financial relationships, including receipt of honoraria: None
- Membership on advisory boards or speakers' bureaus: None
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- The presenter and presentation has received no financial support from any source
- Other: My life long devotion to

#### Plan for today

- Prevalence and Key Symptoms
- Consequences & Co-Morbidities
- Detection & Assessment
- Management "Pills & Skills"
  - Medication
  - Education
  - Coping strategies
  - Maintaining self-esteem
  - Family interventions
  - Coaching
  - CBT



#### Prevalence

- ▶ 6 9 % of all children
- 25-78% continue to have problems as adults
- 4-5% of all adults
- Could be third most prevalent psychiatric disorder
- ? 50 60 adults in an average family practice
- Democratic
- Male : female 2:1
- Changing prevalence with age

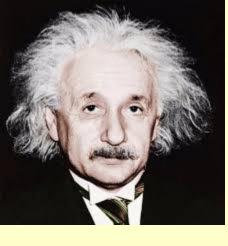


#### ADHD Sufferers in Canada in 2005

| (Statistics Canada)            |                                       |                               |
|--------------------------------|---------------------------------------|-------------------------------|
|                                | ADHD in children, teens<br>(age 5–19) | ADHD in adults<br>(age 20–59) |
| Total Population (estimates)   | 6,182,933                             | 18,567,976                    |
| Prevalence (%)                 | 6%                                    | 4.4%                          |
| Patients with ADHD             | 370,976                               | 816,990                       |
| % Diagnosed and Treated        | 33%                                   | 7%                            |
| Patients Diagnosed and Treated | 122,422                               | 57,189                        |

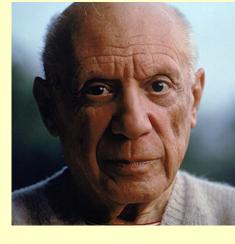
How many adults are left untreated? 759,801

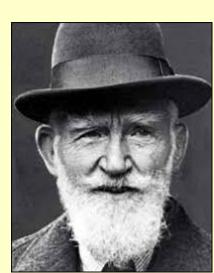












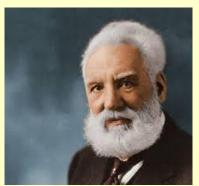


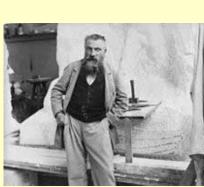










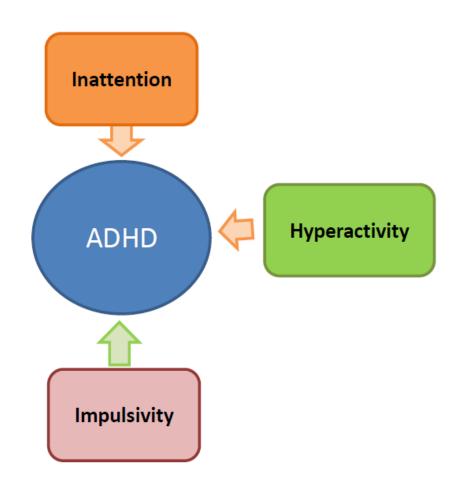






## What is AD(H)D

ADHD –
Delayed
Maturity in
Three
Domains



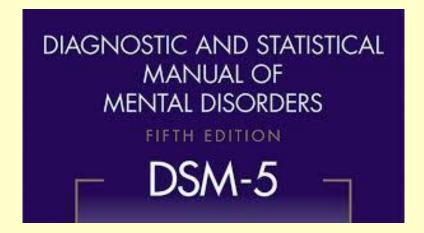
Adopted from: American Psychiatric Association. DSM-5. 2013.

# Key Symptoms are classified in those three domains

#### Symptoms (DSM 5)

- Criteria
  - Inattention
  - Impulsive / hyperactivity
  - Both
    - 5 or more symptoms
    - Greater than 6 months
    - Persistent and Maladaptive
    - At least two domains





#### Adult ADHD - DSM 5 - Attention (5)

- Avoiding tasks or jobs that require concentration
- Difficulty initiating tasks
- Difficulty organizing details required for a task
- Difficulty recalling details required for a task
- Poor time management, losing track of time
- Indecision and doubt
- Hesitation of execution
- Difficulty persevering or completing tasks



 Delayed stop and transition of concentration from one task to another

# Adult ADHD – DSM 5 - Hyperactivity / Impulsivity (5)

- May choose highly active, stimulating jobs
- Avoids situations with low physical activity or sedentary work
- May choose to work long hours or two jobs
- Seeks constant activity
- Easily bored
- Impatient
- Intolerant, frustrated, easily irritated
- Impulsive, snap decisions and irresponsible behaviors
- Loses temper easily, angers quickly



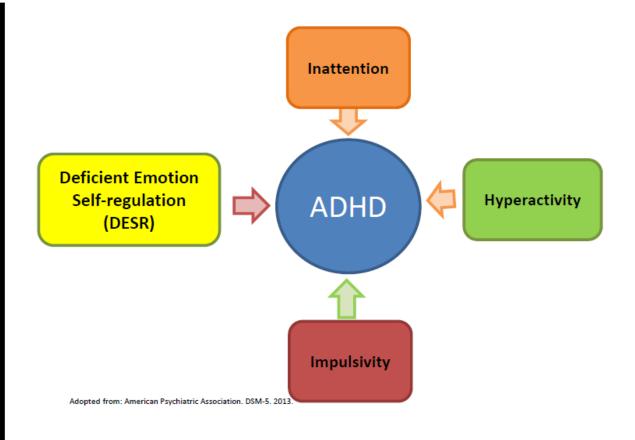
#### Wender's Criteria (4/7)

- Attention difficulties
- Hyperactivity/restlessness
- Disorganization
- Impulsivity

- Temper
- Affective lability
- Emotional over reactivity



ADHD – Delayed Maturity in Four Domains



#### Severity of symptoms

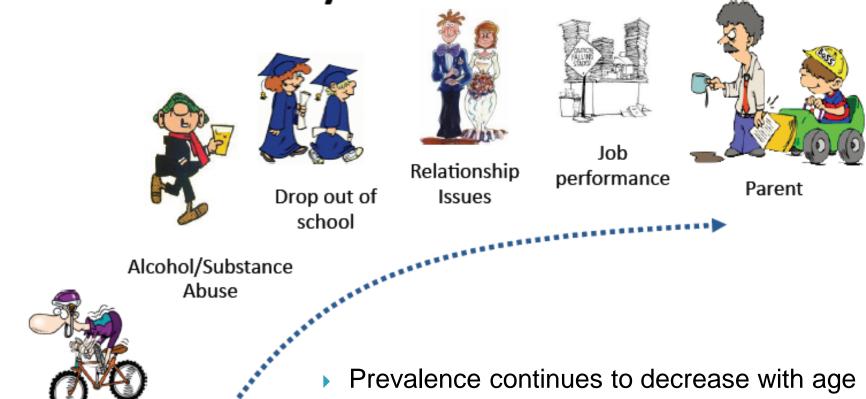
- Present along a spectrum
- Symptoms improve with age
  - ? Maturational process
  - Learning new skills



- Developing adaptive compensatory mechanisms
- Presence doesn't always require treatment
- Treatment decisions based upon extent to which it interferes with daily activities

#### Course

# Lifecycle of ADHD



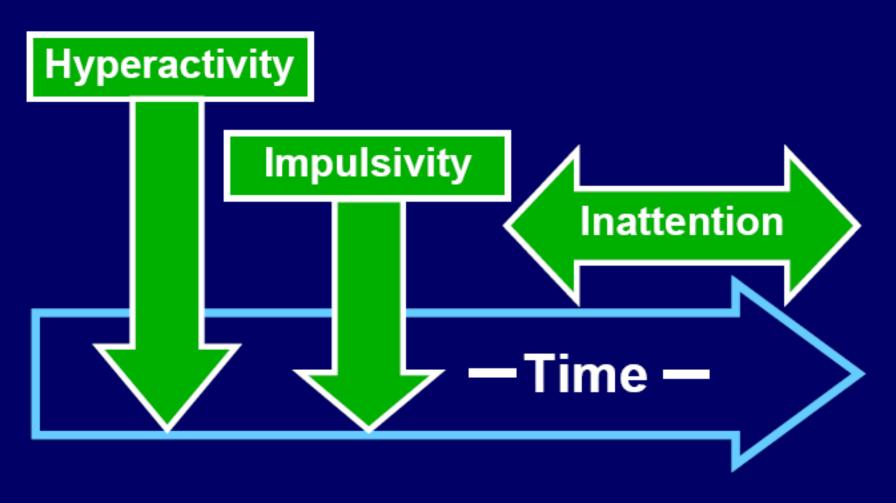
Accidents

Hyperactive as

child

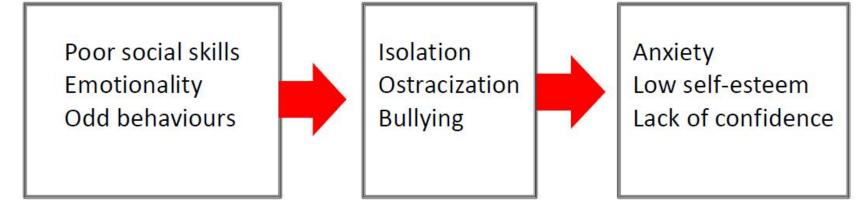
- Adults more likely to "act in" than "act out"
- Sometimes can be adaptive
- Some individuals present when structure of home / school is removed

# ADHD Symptoms Change in Adolescence and Adulthood



## Consequences

#### The Emotional Price of Delayed Maturity





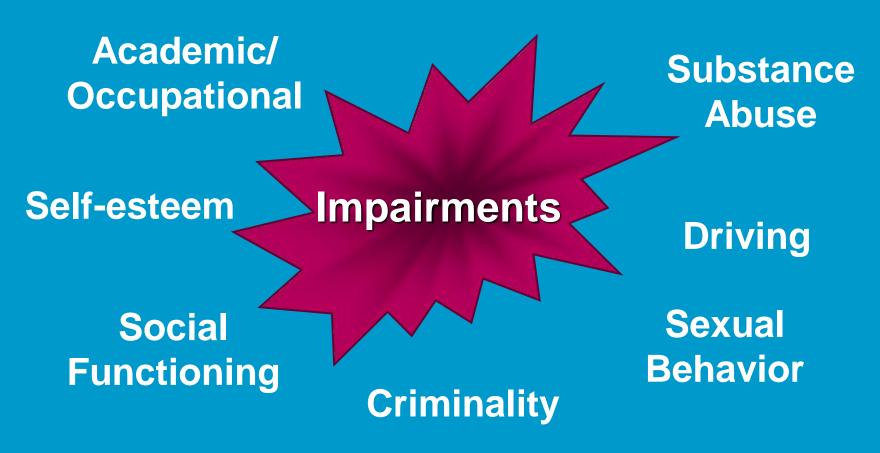


## **ADHD Impairment Persists**

| Childhood                                | <b>* * *</b> | Adulthood   |
|--|--------------|---|
| School failure or underachievement       | Becomes      | Job failure or underemployment                        |
| Multiple injuries                        | Becomes      | Motor vehicle accidents or risk taking                |
| Drug experimentation                     | Becomes      | Drug dependence                                       |
| Oppositional defiant or conduct disorder | Becomes      | Antisocial personality disorder, criminality          |
| Impulsivity, carelessness                | Becomes      | Unwanted pregnancy, sexually transmitted disease, etc |
| Repetitive failure                       | Becomes      | Hopelessness,<br>frustration, giving up               |

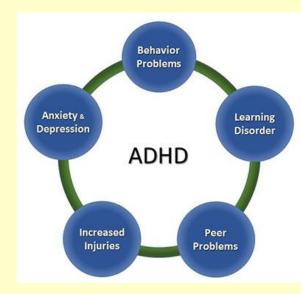
## **Domains of Impairment**

**Injuries** 



#### Other costs of ADHD

- Increased likelihood of being in an MVA
- Increased medical costs
- Increased likelihood of unemployment

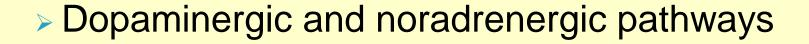


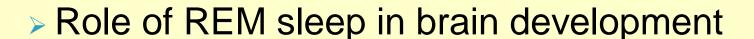
- Significant increases in incarceration rates
- Increased problems with sexual health
- Increased medical costs (system)

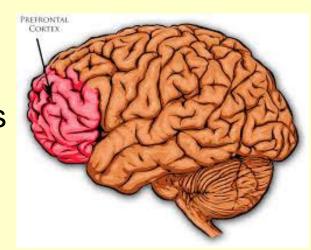
#### Causes

### Proposed Model (Barkley)

- Prefrontal Cortex 4 functions
  - Working memory
  - Self-regulation of affect / arousal
  - Internalisation of speech
  - Reconstitution Behavioural analysis
  - Self regulation
  - Future directed activity
  - Self-control of emotions / impulses
  - Planning / organising



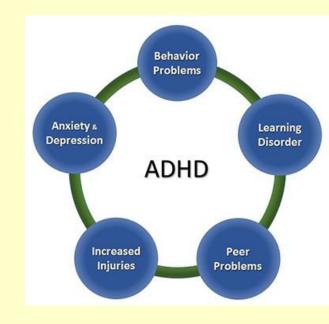




#### **Co-Morbidities**

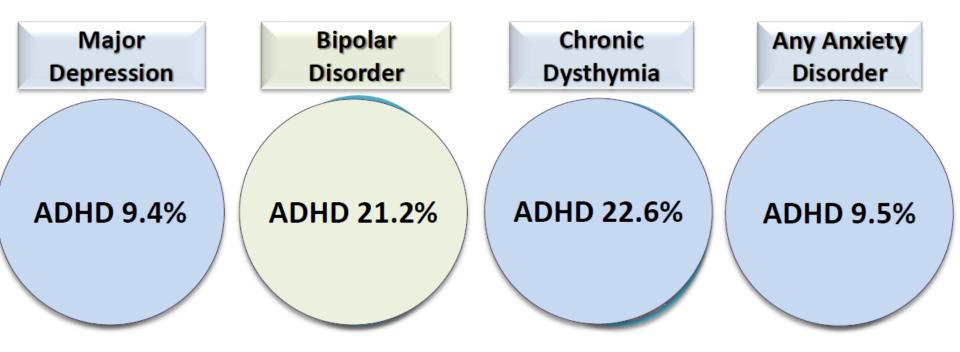
#### **Prevalence and Co-Morbidity**

- ▶ 60 adults in your practice
- 20% of mothers, 25-30% of fathers have ADHD



 High prevalence of co-morbid mood and anxiety disorders

#### National Comorbidity Survey: Comorbidity of ADHD in Mood and Anxiety Disorders

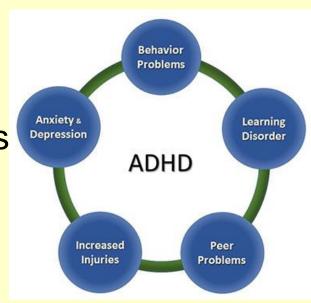


12-month prevalence rates prior to assessment.

Kessler RC et al. Am J Psychiatry. 2006;163:716-723.

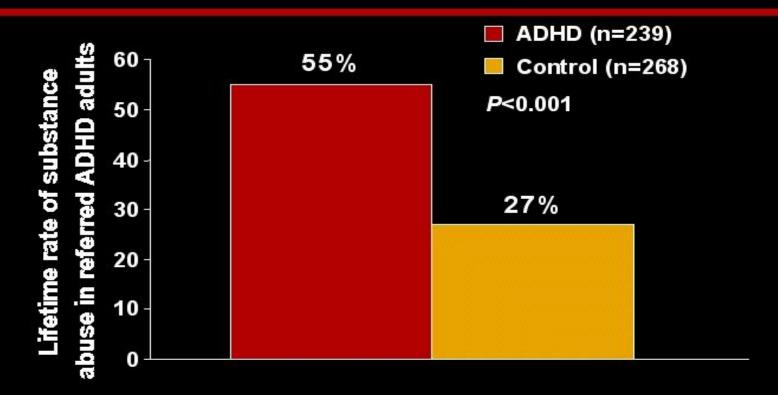
#### **Prevalence and Co-Morbidity**

- ▶ 60 adults in your practice
- 20% of mothers, 25-30% of fathers have ADHD



- High prevalence with mood and anxiety disorders
- 25% have co-morbid substance use disorders

# Increased Lifetime Substance Abuse in Untreated Adults with ADHD

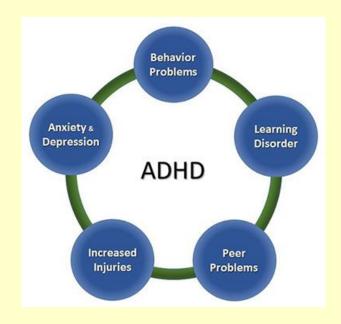


Biederman, et al. Biol Psychiatry. 1998;44:269-273.

#### Prevalence and Co-Morbidity

- 60 adults in your practice
- 20% of mothers, 25-30% of fathers haveADHD

- High prevalence with mood and anxiety disorders
- 25% have co-morbid substance use disorders
- 75% have a sleep disorder (Delayed sleep phase syndrome)
- 40-70% of people with ASD have ADHD



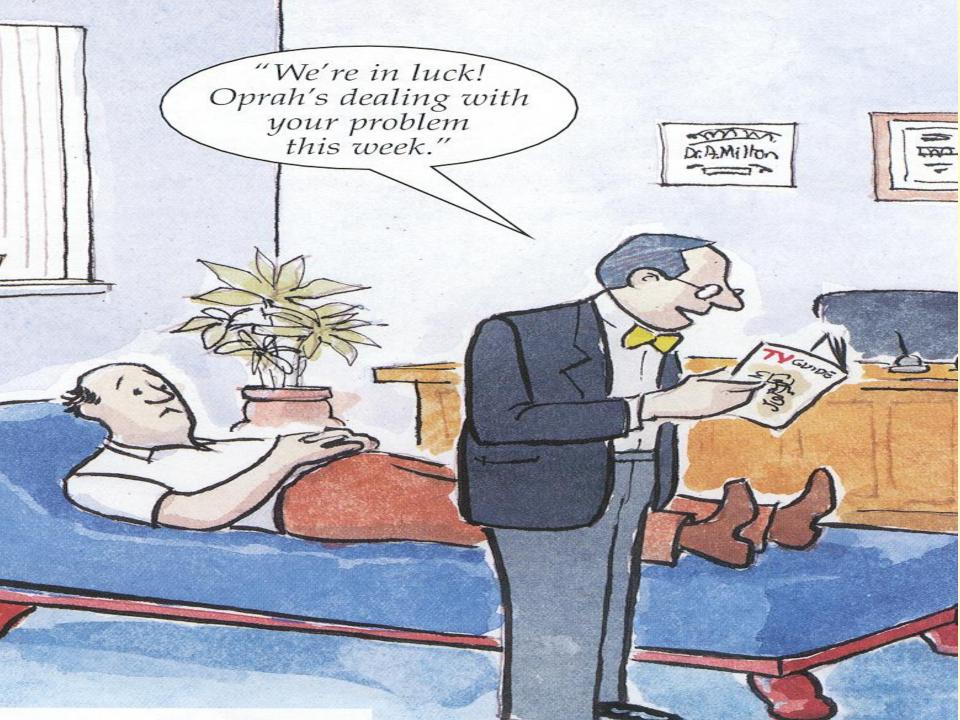
#### **Sensory Processing Disorder**

- In 40% of people with ADHD sensory information is not adequately filtered and is experienced overly intensively or unduly muted
- You can ask
  - Do any sights, sounds, smells upset you
  - Do any particular materials feel uncomfortable on your skin
  - Do you have to cut the labels out of your clothes
  - Do any foods make you gag

# How ADHD in adults can present in Primary Care

# Self diagnosed

- They've been thinking about it for a while
- A child (or parent) receive a diagnosis
- A friend or relative suggests it
- They had completed an on-line survey
- Celebrity ripple effect



#### BOB

- Self-referred concerned about his mood
- Recent life stresses
- Inconsistent work and relationship history
- Met criteria for ADD + PHQ score was 16
- Was also depressed wanted to start an antidepressant (Buproprion)
- Seen a year later mood was brighter and wanted to start a stimulant
- Still met criteria for ADD
- Positive response to Dextroamphetamine



#### **JANE**

- Referral for her Bipolar Affective Disorder
- Mood swings consistent with cyclothymia
- Consistent history of problems with attention, distractibility, academic underachievement
- Two diagnoses eventually established
- Some overall improvement with Lithium
- Reluctant to start a stimulant



#### **HEATHER**

Friend suggested she take an on-line screen



- Tested positive
- Came to her FP requesting medication
- Met diagnostic criteria
- Did well on Methylphenidate

# Detection

# Why is it difficult to detect

- Diagnosis based on behaviours only
- Symptoms along a spectrum
- Symptoms are similar to those in other conditions
- Co-morbid Condition
- Previous history often undocumented
- "Vogue" diagnosis increasing self-detection

# Clues to the presentation







## Possible Flags from the History

- Concentration / Forgetful
- Lack of organisation
- Work performance
- Underachieving
- Impulsivity
- Relationship instability / conflict
- Family history
- Poor self-esteem



#### Other clues

- Mood and Anxiety with a poor response to treatment
- Drug abuse or drug dependence
- Frequent job changes or moving often
- Frequent driving infractions
- Higher number of accidents than expected
- Poor school performance as a child
  - Not reaching their potential / underachieving
  - Disruptive in class
  - "Could do better" "Needs to hand assignments in on time"
  - Split in marks
    - Good in visual subjects,
    - Poor in Maths and Science



### In Your Office

Are forgetful - miss appointments or arrive late

- Lose prescriptions
- Do not carry out instructions or the treatment plan
- Are hypertalkative

Has emotional storms, triggered by life events

# **Assessment**

#### Assessment – Areas to cover

- Symptoms
- Course / Time Frame

- Other mental health issues / diagnoses
- Substance use
- Relationships social & family
- Family history
- Legal history
- School / work performance underachieving



History from family

Family members can bring a different perspective



"My family's all grown up now — except for my husband, of course."

#### Collateral History from Friends, Partners

Are they organized?

Are they forgetful? Reliable?

Are they moody?

Do they finish projects at home?

How are they at managing their finances?

Do they talk too much?

Do they finish your sentences?

# Berkley's 9 areas to cover

| 1 | Is often easily distracted by extraneous stimuli or irrelevant thoughts   |
|---|---|
| 2 | Often makes decisions impulsively   |
| 3 | Often has difficulty stopping his or her activities or behaviour when he or she should do so  |
| 4 | Often starts a project or task without reading or listening to directions carefully   |
| 5 | Often shows poor follow-through on promises or commitments he or she may make to others   |
| 6 | Often has trouble doing things in their proper order or sequence  |
| 7 | Often more likely to drive a motor vehicle much faster than others (excessive speeding)  Alternative: Often has difficulty engaging in leisure activities or doing fun things quietly |
| 8 | Often has difficulty sustaining attention in tasks or play activities   |
| 9 | Often has difficulty organizing tasks and activities  |
|   |   |

# Questions for Suspected Adult ADHD

Have you ever been diagnosed with ADHD?

- Do you have a family history of ADHD (siblings, children, parents or extended family)?
- Did you have any difficulty in school?
  - Did you daydream or have difficulty payment attention?
  - Did you get your homework done on time?
  - Were you disruptive?



**Anything positive – move to Step 2** 

Do you currently have substantial difficulties with forgetfulness, attention, impulsivity or restlessness that are interfering with your relationships or your success at work?



**Anything positive – move to Step 3** 

Complete ASRS and Complete Diagnostic Interview

# **Screening Instruments**

- Not diagnostic
- Self-Reports
- Point out areas for interventions
- May identify co-morbid problems
  - ASRS (Adult Self-Report Scale)
  - Barkley Screener
  - Weiss Functional Impairment Scale

#### Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist

| Patient Name  |  | Today's        | Date |        |           |       |            |
|---|--|----------------|------|--------|-----------|-------|------------|
| Please answer the questions below, rating yourself on each of the criteria shown using the scale on the right side of the page. As you answer each question, place an X in the box that best describes how you have felt and conducted yourself over the past 6 months. Please give this completed checklist to your healthcare professional to discuss during today's appointment. |  |                |      | Rarely | Sometimes | Often | Very Often |
| How often do you have trouble wrapp<br>once the challenging parts have been of  |  | t,             |      |        |           |       |            |
| 2. How often do you have difficulty getting a task that requires organization?  | ng things in order when you have   | to do          |      |        |           |       |            |
| 3. How often do you have problems rem   | embering appointments or obligat   | ions?          |      |        |           |       |            |
| 4. When you have a task that requires a or delay getting started?   | lot of thought, how often do you   | avoid          |      |        |           |       |            |
| 5. How often do you fidget or squirm wi<br>to sit down for a long time?   | th your hands or feet when you h   | nave           |      |        |           |       |            |
| 6. How often do you feel overly active as were driven by a motor?   | nd compelled to do things, like yo   | u              |      |        |           |       |            |
|   |  |                | -    |        |           | F     | Part A     |
| <ol><li>How often do you make careless miss<br/>difficult project?</li></ol>  | takes when you have to work on   | a boring or    |      |        |           |       |            |
| 8. How often do you have difficulty keep or repetitive work?  | oing your attention when you are   | doing boring   |      |        |           |       |            |
| How often do you have difficulty condeven when they are speaking to you described to your description.  |  | ou,            |      |        |           |       |            |
| 0. How often do you misplace or have o  | difficulty finding things at home or                                       | at work?       |      |        |           |       |            |
| 1. How often are you distracted by activ  | vity or noise around you?  |                |      |        |           |       |            |
| How often do you leave your seat in you are expected to remain seated?  | meetings or other situations in w  | hich           |      |        |           |       |            |
| 3. How often do you feel restless or fid  | gety?  | 1.4            |      |        |           |       |            |
| How often do you have difficulty unw to yourself?   | rinding and relaxing when you hav  | e time         |      |        |           |       |            |
| 5. How often do you find yourself talking   | ng too much when you are in soci   | al situations? |      |        |           |       |            |
| 6. When you're in a conversation, how<br>the sentences of the people you are t<br>them themselves?  | often do you find yourself finishing<br>calking to, before they can finish | 3              |      |        |           |       |            |
| 17. How often do you have difficulty wait<br>turn taking is required?   | ting your turn in situations when  |                |      |        |           |       |            |
| 18. How often do you interrupt others v   | when they are busy?  |                |      |        |           |       |            |
|   |  |                |      |        |           |       | Part       |

#### Adult Self-Report Scale v1.1 (ASRS)- Screener

|                           | ASRS Screener v1.1   | Never | Rarely | Sometimes | Often | Very<br>Often |
|---------------------------|--|-------|--------|-----------|-------|---------------|
| Inattention               | How often do you have trouble wrapping up the final details of a project, once the challenging parts have been done? |       |        |           |       |               |
|                           | How often do you have difficulty getting things in order when you have to do a task that requires organization?      |       |        |           |       |               |
|                           | When you have a task that requires a lot of thought, how often do you avoid or delay getting started?                |       |        |           |       |               |
|                           | How often do you have problems remembering appointments or obligations?  |       |        |           |       |               |
|                           |  |       |        |           |       |               |
| Hyperactive/<br>Impulsive | How often do you fidget or squirm with your hands or feet when you have to sit down for a long time?                 |       |        |           |       |               |
|                           | How often do you feel overly active and compelled to do things, like you were driven by a motor?                     |       |        |           |       |               |

Significant items shaded (p=0.5); Likely to have ADHD with  $\geq$  4 significant items

# Management "Pills and Skills"

# Management

- Medication
- Education
- Structure and coping strategies
- Coaching
- Psychotherapy
- Maintaining self-esteem
- Family interventions

# Medication

### Medication

- Stimulants
  - Methylphenidate
    - Concerta
    - Biphentin
    - Foquest
  - Dextroamphetamine
    - Adderall
    - Vyvanse
- Atomoxetine
- Guanfacine
- Clonidine
- Anti-depressants
  - Buproprion
  - Venlafaxine
  - Desipramine



80% of prescriptions for stimulants are written by family physicians

### Prescriptions for Adults Annually

#### ICES Study 2014

- 5.8 million prescriptions
- Increase of 119% from 2004

Canada 69:1000

Quebec 105:1000

Manitoba 38:1000

Ontario 55:1000

#### BC Study 2023

- Increase of 17% a year in prescriptions since 2004
- Was 1 user per 1000. Now 16 users per 1000

#### CADDRA Guide to ADHD Pharmacological Treatments in Canada - 2019

Dose titration as per product monograph

Dose titration as per CADDRA

www.caddra.ca

Starting dose 2

Duration of

action 1

Characteristics

Medications available and illustrations

**AMPHETAMINE-BASED PSYCHOSTIMULANTS** 

| Dexedrine® tablets 5 mg  Dexedrine® spansules 10, 15 mg                       | Pill can be<br>crushed <sup>3</sup><br>Spansule (not<br>crushable)          | ~4h<br>~6-8h | Tablets = 2.5 to 5 mg BID<br>Spansules = 10 mg q.d. a.m.                            | ↑ 2.5 - 5 mg at weekly intervals;  Max. dose/day: (q.d. or b.i.d.)  All ages = 40 mg  | ↑ 2.5 - 5 mg/day at weekly intervals  Max. dose/day: (q.d. or b.i.d.)  Children and Adolescents = 20 - 30 mg  Adults = 50 mg  |  |  |  |
|---|---|--------------|---|---|---|--|--|--|
| Adderall XR® Capsules 5, 10, 15, 20, 25, 30 mg                                | Sprinkable<br>Granules  | ~ 12 h       | 5 - 10 mg q.d. a.m.   | ↑ 5 - 10 mg at weekly intervals Max. dose/day: Children = 30 mg Adolescents and Adults = 20 - 30 mg   | Children: ↑ 5 mg at weekly intervals Max. dose/day = 30 mg Adolescents and Adults: ↑ 5 mg at weekly intervals max. dose/day = 50 mg   |  |  |  |
| Vyvanse® capsules 10, 20, 30, 40, 50, 60, 70* mg                              | Capsule content can be diluted in water, orange juice and yogurt            | ~ 13 - 14 h  | 20 - 30 mg q.d. a.m.  | ↑ by clinical discretion at weekly intervals<br>Max. dose/day:<br>All ages = 60 mg  | ↑ 10 mg at weekly intervals<br>Max. dose/day:<br>Children = 60mg<br>Adolescents and Adults = 70 mg  |  |  |  |
| METHYLPHENIDATE-BASED PSYCHOSTIMULANTS  |   |              |   |   |   |  |  |  |
| Methylphenidate short acting, tablets 5 mg (generic) 10, 20 mg (Ritalin®)     | Pill can be<br>crushed <sup>3</sup>   | ~ 3 - 4 h    | 5 mg b.i.d. to t.i.d.<br>Adult = consider q.i.d.                                    | ↑ 5 - 10 mg at weekly intervals<br>Max. dose/day:<br>All ages = 60 mg   | ↑ 5 mg at weekly intervals  Max. dose/day: Children and Adolescents = 60 mg  Adults = 100 mg  |  |  |  |
| Biphentin® 201 10 10 201 201 Capsules 10, 15, 20, 30, 40, 50, 60, 80 mg       | Sprinkable<br>Granules  | ~ 10 - 12 h  | 10 - 20 mg q.d. a.m.  | ↑ 10 mg at weekly intervals<br>Max. dose/day: Children and Adolescents = 60 mg<br>Adults = 80 mg  | ↑ 5 - 10 mg at weekly intervals<br>Max. dose/day: Children = 60 mg<br>Adolescents and Adults = 80 mg  |  |  |  |
| Concerta® Extended Release Tabs 18, 27, 36, 54 mg                             | Pill needs to swallowed<br>whole to keep delivery<br>mechanism intact       | ~ 12 h       | 18 mg q.d. a.m.   | ↑ 18 mg at weekly intervals<br>Max. dose/day: Children = 54 mg<br>Adolescents = 54 mg / Adults = 72 mg  | ↑ 9 - 18 mg at weekly intervals  Max. dose/day: Children = 72 mg  Adolescents = 90 mg / Adults = 108 mg   |  |  |  |
| Foquest® Capsules 25, 35, 45, 55, 70, 85, 100 mg                              | Sprinkable<br>Granules  | ~ 16 h       | 25 mg q.d. a.m.   | ↑ 10-15 mg in intervals of no less than 5 days<br>Max. dose/day: Children and Adolescents = 70 mg<br>Adults = 100 mg  | ↑ 10-15 mg in intervals of no less than 5 days<br>Max. dose/day: Children and Adolescents = 70 mg<br>Adults = 100 mg  |  |  |  |
| NON PSYCHOSTIMULANT - SELECTIVE NOREPINEPI                                    | HRINE REUPTAKE INHIB  | ITOR         |   |   |   |  |  |  |
| Strattera <sup>MD</sup> (Atomoxetine) Capsules 10, 18, 25, 40, 60, 80, 100 mg | Capsule needs to<br>swallowed whole<br>to reduce GI side<br>effects         | Up to 24 h   | Children and Adolescents :<br>0.5 mg/kg/day<br>Adults = 40 mg<br>q.d. for 7-14 days | Maintain dose for a minimum of 7 - 14 days before<br>adjusting:<br>Children = 0.8 then 1.2 mg/kg/day<br>70 kg or Adults = 60 then 80 mg/day<br>Max. dose/day : 1.4 mg/kg/day or 100 mg  | Maintain dose for a minimum of 7 - 14 days<br>before adjusting:<br>Children = 0.8 then 1.2 mg/kg/day<br>70 kg or Adults = 60 then 80 mg/day<br>Max. dose/day: 1.4 mg/kg/day or 100 mg   |  |  |  |
| NON PSYCHOSTIMULANT - SELECTIVE ALPHA-2A ADRENERGIC RECEPTOR AGONIST          |   |              |   |   |   |  |  |  |
| Intuniv XR® (Guanfacine XR) Extended release tabs 1, 2, 3, 4 mg               | Pills need to be<br>swallowed whole<br>to keep delivery<br>mechanism intact | Up to 24 h   | 1 mg q.d. (morning or<br>evening)   | Maintain dose for a minimum of 7 days before adjusting<br>by no more than 1 mg increment weekly<br>Max. dose/day: Monotherapy: 6-12 years = 4 mg, 13-17<br>years = 7 mg<br>As adjunctive therapy to psychostimulants<br>6-17 years = 4 mg | Maintain dose for a minimum of 7 days before adjusting<br>by no more than 1 mg increment weekly<br>Max. dose/day: Monotherapy: 6-12 years = 4 mg, 13-17<br>years = 7 mg<br>As adjunctive therapy to psychostimulants<br>6-17 years = 4 mg |  |  |  |

# **Short acting stimulants**

- Methylphenidate (up to 80 mgm. / day)
- Dextroamphetamine (up to 40mgm / day)
- Short acting (2-4 hours)
- Up to 3 divided doses a day
- Fixed schedule or as needed
- Can be combined with a long-acting stimulant
- Greater potential for abuse
- Side-effects
  - Sleep
  - Appetite
  - Rebound
  - Restlessness
  - Tics (MPH)

Dose

1 mg/kg/day Not

exceeding 80

100 mg/day

70 mg/day

30 mg/day

7 mg in adults, 4

in children, 4 in

combination

mg/day

| Long-Acting Medications: Dosing                                    |                       |                      |               |                        |           |  |  |  |
|--|-----------------------|----------------------|---------------|------------------------|-----------|--|--|--|
| Product  | Admin                 | Availability         | Starting Dose | Titration              | Max Dos   |  |  |  |
| Methylphenidate<br>hydrochloride<br>extended-release<br>(Concerta) | Tablet in the morning | 18, 27, 36, 54<br>mg | •             | PRN adjusted<br>weekly | 72 mg/day |  |  |  |

10 mg OD

25 mg

30 mg

1 mg

5-10 mg/day

0.25/mg/kg

(morning) \*up to

10 mg weekly up

Increase by 10 or

10-20 mg/day at

weekly intervals

5-10 mg weekly

Increase weekly

by 1 mg Can be

used to augment

a stimulant

15mgm weekly

to max

10, 15, 20, 30,

40, 50, 60, 80

25, 35, 45, 55,

75, 0, 85, 100

10, 20, 30, 40,

5, 10, 15, 20, 25,

1, 2, 3, 4 mg

50, 60 mg

30 mg

mg

Methylphenidate

controlled release

Methylphenidate

controlled release

Lisdexamfetamine

hydrochloride

(Foquest)

-dimesylate

Mixed salts

amphetamine

(Adderall XR)

Guanfacine

(Intuniv)

extended-release

(Vyvanse)

hydrochloride

(Biphentin)

Capsule, in the

Capsule once a

Capsule in the

morning. Can

Capsule in the

on applesauce

am. Can sprinkle

Tablet once a day

dissolve in water

day

morning, Can be

sprinkled on food

# Long acting stimulants

- Usually last 9-14 hours Longest Foquest, Vyvanse
- Longer and smoother onset and withdrawal
- Less potential for abuse
- Different delivery methods
- May be easier for adherence as taken once a day
- Can be taken with short-acting stimulants
- Dosing can be staggered
- A number of different options

# Sideeffects



"This medication causes drowsiness and lethargy.' Good."

# Side-effects of long-acting medications

- Sleep
- Appetite
- Less rebound
- Increased arousal / irritibility
- Weight loss
- Low mood
- Foggy thoughts
- Slight increase in blood pressure and heart rate but not of stroke or MI
- No need for an EKG unl4ess pre-existing condition

## **Benefits of Stimulants**

# Stimulants Improve ADHD Symptoms

#### **Core Symptoms**

- Inattention
- Impulsivity
- Hyperactivi ty

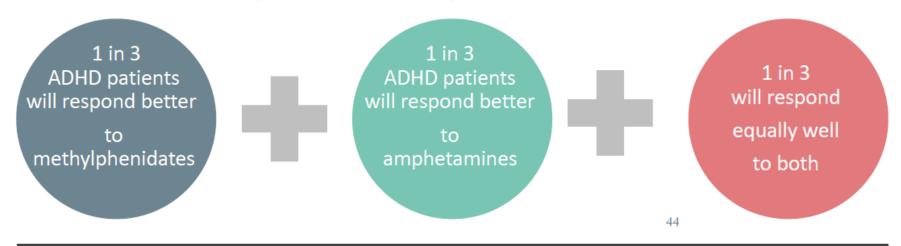
# AND

- Compliance (ODD)
- Impulsive aggression
- Social interactions
- Academic efficiency
- Academic accuracy

Effects increase with dose but watch for cognitive toxicity: "ZOMBIE" "SPACED OUT"

# Prescribing in ADHD: Rule of Thirds

Based on clinical experience and expert consensus:



Literature reviews have found that up to 95% of ADHD patients may respond to stimulants (68-71% to methylphenidate and 68-77% to amphetamines)

#### **Evidence re Stimulants**

#### Reviews – Meta-analyses suggest

- Faraone 2010
  - Long-acting no different from short-acting
  - Amphetamine derivatives slightly more effective than methylphenidates
  - Stimulants more effective than anti-depressants

# Other Medication Options

### Guanfacine (Intuniv)

- Selective alpha 2A-adrenergic receptor agonist
- ▶ 1–7 mgm, once daily
- Can take up to 2 weeks to work
- Not a stimulant
- Reinforces receptors in the brain
- Can be used in conjunction with a stimulant
- Swallowed not crushed
- Stop gradually

#### Clonidine

- Selective alpha 2A-adrenergic receptor agonist
- ▶ 0.1–0.6 mgm, once or twice daily
- Slower build up but lasts 25 hours
- Not a stimulant
- Also used for treating hypertension
- Reinforces receptors in the brain
- Can be used in conjunction with a stimulant

### **Antidepressants**

#### Dopamine / Noradrenaline

- Buproprion
- Venlafaxine
- TCAs
  - Desipramine
  - Imipramine

#### Seratonin

- SRIS
  - No evidence of any benefits

### The "skills"

#### **Education**

- Information about the prevalence
- Information about the symptoms
- Family linkage
- Information about course and possible consequences
- Reading materials
- Any questions your patient may have



# **Books to recommend**Driven to Distraction

Edward Hallowell and John Ratey

#### **Delivered from Distraction**

Edward Hallowell and John Ratey

#### **Succeeding With Adult ADHD**

Abigail Levrini

### You mean I'm not lazy, crazy or stupid

Kate Kelly and Peggy Ramundo

#### Taking Charge of Adult ADHD

Russell Barkely

#### Web resources

#### **Rating Scale**

www.med.nyu.edu/psych/assets/adhdscreen18.pdf

#### Information

www.caddra.ca

www.caddac.ca

www.chaddcanada.org

www.adhdcanada.ca

www.ADHDandYou.ca

www.associationpanda.qc.ca

www.attentiondeficit-info.com/home.php

### Two Sites with a selection of Apps

#### Healthline.com

www.healthline.com/health/adhd/top-iphoneandroid-apps#A-quick-look-at-the-best-ADHD-apps

#### Additude.com

<u>www.additudemag.com/mobile-apps-for-adhd-minds/</u>

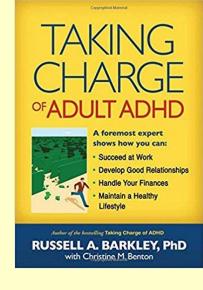
#### Structure

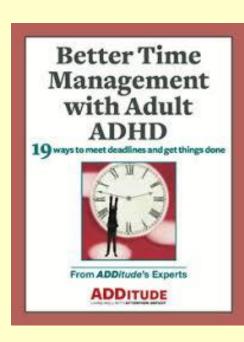
- Daily list of tasks keep it manageable
- Break tasks into manageable pieces
- Keep an appointment book / planner
- Keep notepads in accessible places
- Use a personal dictaphone or cell phone to write things down
- Post key messages in visible places ie car
- Develop a filing system file everything immediately
- Ask a friend / family member to remind you of important events / appointments



### **Coping Strategies**

- Set personal / attainable goals
- Develop daily routines
- Reward yourself when achieved
- If it didn't work, take a time out to review the situation
- Stress management
- Sleep hygiene / decrease screen time
- Physical activity
- Maintain a sense of humour
- Use mindfulness techniques

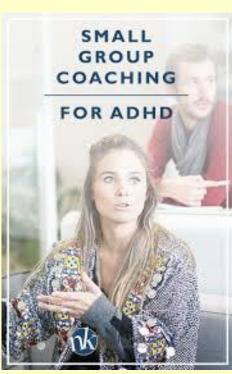




### Coaching

Practical, supportive and directive, similar to cognitive behaviour therapy interventions:

- time management (watch, timer, agenda, mobile phone/PDA)
- getting oversight of finances
- planning time / intimacy with spouse
- organising daily life (household, children, administration)
- reorientation on education or work
- addressing process of acceptance of the disorder and need for medication
- learning social and organisational skills



### **Psychotherapy**

Building self-esteem

CBT - SPEAR
 Stop, Pullback, Evaluate, Act, Re-evaluate

Individual and Family Support

Counselling

Maintaining self-esteem

#### Maintain self-esteem

- recognise achievements
- find strengths
- avoid failures
- avoid criticism
- cognitive approaches
- empowerment



### **Family interventions**

- Help with assessment
- Identify other issues
- Explain and answer any questions
- Reading material
- Engage as a "coach"
- Support



### Summary

- Common, often with co-morbid conditions
- Neurodevelopmental Disorder characterized by poor emotional self-regulation
- No diagnostic test / use history and screening tools
- Doesn't need Neuropsych. Testing or Psychiatry
- Treatment includes Pills and Skills
- Stimulants improve Executive Function and Emotional Regulation
- Help provide information, structure and avoid failures

### Primary Care – the essentials

- Consider cues / co-morbidity
- Simple questions to ask
- Use ASRS to screen
- Medication
  - Core of treatment
  - Options
- Help provide structure and information
- See the family
- Know which resources to suggest books / sites

### Thank you!

Please fill out your session evaluation now!





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## nkates@mcmaster.ca