Practical Talks for Family Docs

April 18, 2023

Conflict of Interest Disclosure

Allan Grill, MD, CCFP (COE), MPH

Physician Advisor (CFPC); Chief of Department of Family Medicine (Markham Stouffville Hospital); Lead Physician (Markham Family Health Team)

1) Canadian Agency for Drugs & Technologies in Health – Member of the Canadian Drug Expert Committee
2) Ontario College of Family Physicians – 2021 FMS speaker; 2022 FMS moderator
3) Humber River Hospital – speaker stipend, PriMed Canada 2021
4) Alpha Labs – Consultant (ON Cystatin C Project 2021)
5) UBC, Continuing Professional Development, Faculty of Medicine – Speaker Stipend (This Changed My Practice 2021)
6) MPI research – Participant stipend (pediatric vaccines 2021)
7) Alberta College of Family Physicians – 2022 Family Medicine Summit Speaker (FMS) speaker
8) North Bay Physicians Medicine Update 2023 – Speaker Stipend

Upcoming Webinars – Tuesdays at 12:00 p.m.

Top Research Studies of 2022: What's new, true and poo

May 2, 2023

Dr. Mike Allan

(English)

Les grands et petits moments de la dernière année:

Revue de publications récentes et de nouveaux médicaments

May 2, 2023

Dr. Nicolas Dugré

(French)

Short Snappers for Pride Month: Caring for 2SLGBTQ+ patients in primary care

June 20, 2023

Panel discussion

(English)

DIAGNOSIS AND TREATMENT OF ADHD IN THE CHILD AND YOUTH POPULATION IN PRIMARY CARE

Conflicts of Interest - Declaration

- DR. MATT BLACKWOOD BSc, MD, CCFP, FCFP, LIFETIME MEMBER
- FAMILY PHYSICIAN BOWEN ISLAND BC

- CONFLICT OF INTEREST: SPEAKER'S BUREAU ELVIUM AND TAKEDA.

- MITIGATING BIAS: Despite the above COI, this presentation was created independently and evidence based resources will be referenced.

LEARNING OBJECTIVES

1. Recognize the challenges to diagnosis of ADHD complicated by co-morbidity.
2. Describe the non-pharmacological and pharmacological strategies for managing ADHD in the child and youth population.
3. Explore the idea of developing a primary care power-point presentation for patients and families

POLLING QUESTIONS:

1. ADHD IS CAUSED BY PSYCHOSOCIAL ADVERSE EXPERIENCES IN CHILDHOOD . TRUE OR FALSE?

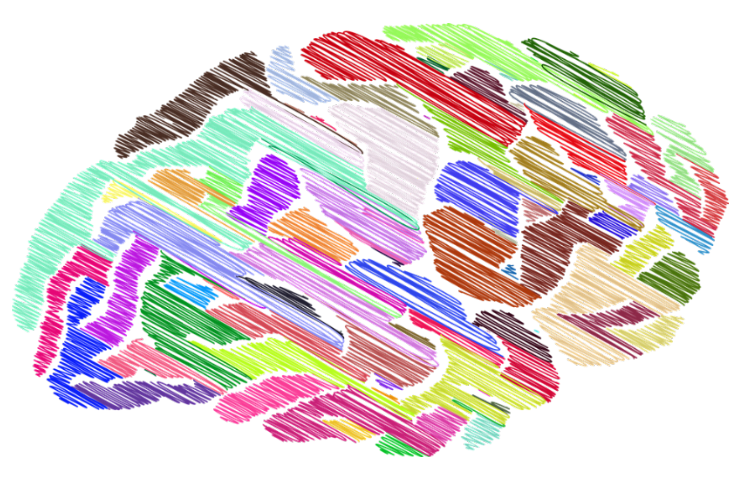
2. PSYCHOSTIMULANTS ARE ADDICTIVE. TRUE OR FALSE?

3. PSYCHOSTIMULANT PRESCRIBING IS NOT A GATEWAY TO ADDICTION. TRUE OR FALSE?

CASE PRESENTATION

- Sophie is age 7, grade 2, brought into your office after the first report card with reading delay and being the class clown wanting to be everyone's best friend.
- KG was fun but had issues sitting still in circle time and did not like focussing on printing.
- FTNVD, normal milestones but was noted to have some delayed speech development.
- Father self employed tree faller completing grade 10 and has struggled with alcohol abuse. Mother completed grade 12. Brother is age 2 and "on the move"

What is ADHD?



- Common Neurodevelopmental Disorder most often diagnosed in childhood

- Primary Characteristics
  - Inattention
  - Hyperactivity
  - Impulsivity

DSM-5 Criteria For Diagnosis of ADHD

- 6 or more symptoms (only 5 for older adolescents and adults)
- Symptoms must have persisted for at least 6 months
- Symptoms present before age 12
- Symptoms present in at least 2 settings
- Symptoms interfere or reduce the quality of social, academic, or occupational functioning
- Symptoms are not better explained by another mental disorder

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

Diagnosis: DSM-5 Presentations

INATTENTIVE PRESENTATION

6 of 9* symptoms are required from Criteria A1

HYPERACTIVE-IMPULSIVE PRESENTATION

6 of 9* symptoms are required from Criteria A2

COMBINED PRESENTATION

6 out of 9* symptoms are required from Criteria A1 + 6 out of 9* symptoms are required from Criteria A2

Other Specified ADHD / Unspecified ADHD: Symptoms causing impairment but full criteria for ADHD are not met.

*Total number of symptoms are less in adults (17+): 5 of 9 instead of 6 of 9

ADHD over the lifespan

- Childhood prevalence of approximately 5-7% in North America
- Worldwide pooled prevalence 3.4%
- 50% of children/adolescents will continue to experience impairments during adulthood

ADHD Across the Lifespan

Adults
3 – 5 %

>80% of adults with ADHD have never been diagnosed or treated

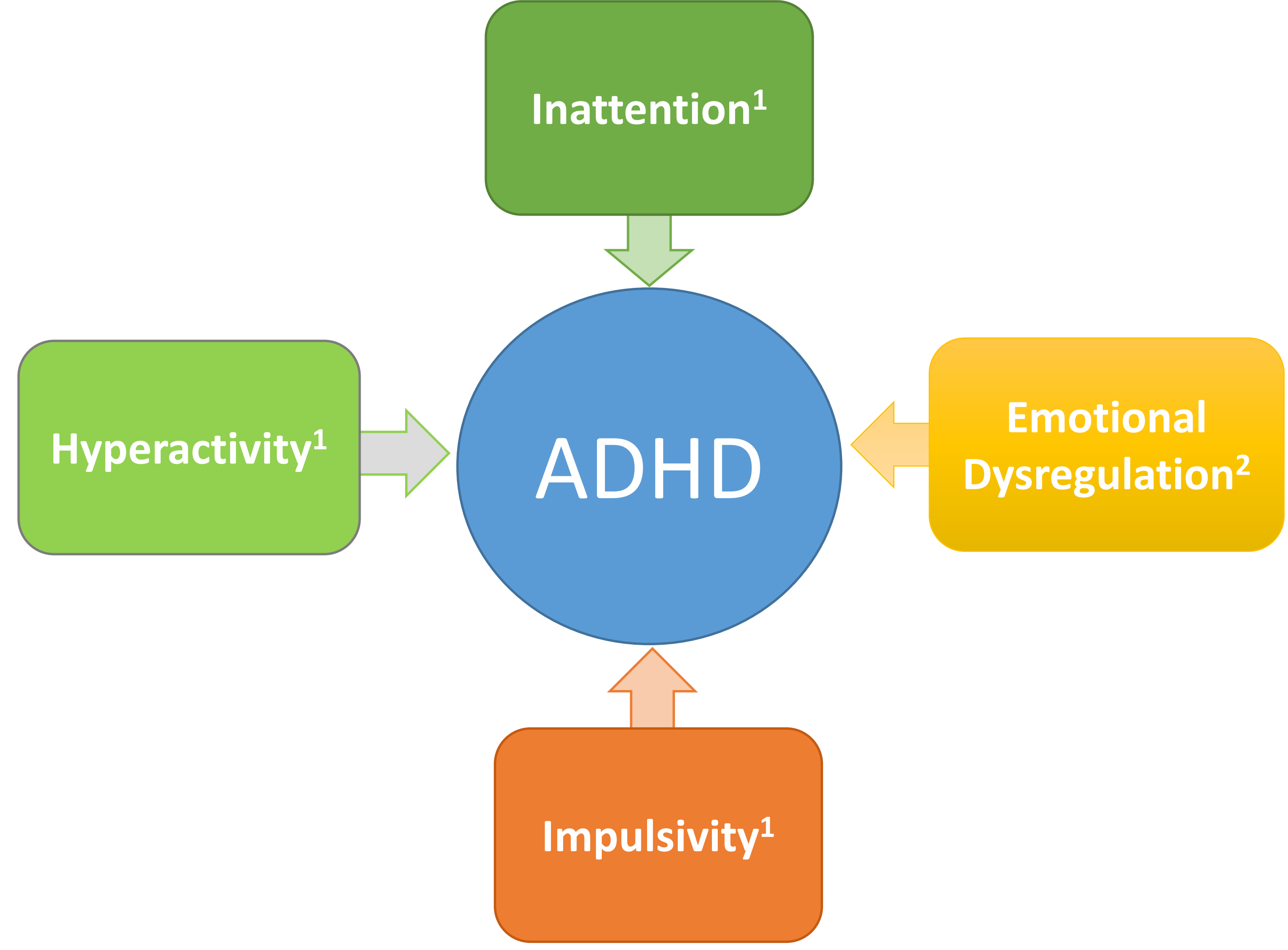
Adolescents: 5 – 8 %

60% will experience symptoms in adulthood

Children: 5 – 8 % of the population
70-85% of these children experience symptoms in adolescence

CADDRA. Canadian ADHD Practice Guidelines. Fourth Edition. 2018; Biederman J. *J Clin Psychiatry*. 2004;65:3-7; Ginsberg Y, et al. *Prim Care Companion CNS Disord.* 2014;16(3); Kessler RC, et al. *Am J Psychiatry*. 2006;163:716-723; Michelson D, et al. *Biol Psychiatry.* 2003;53:112-120.; Wender PH, et al. *Ann N Y Acad Sci.* 2001;931:1-16; Wilens TE, et al. *Annu Rev Med.* 2002;53:113-131; Young JL. *ADHD Grown Up: A Guide to Adolescent and Adult ADHD.* New York, NY: WW Norton & Company; 2007.

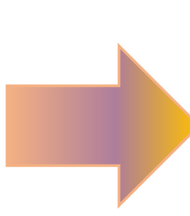
What is ADHD?

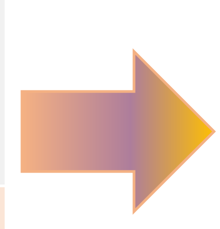


1. Adapted from: American Psychiatric Association. DSM-5. 2013.
2. Shaw P et al. Am J Psychiatry 2014; 171(3): 276-293.

Lifetime Course of ADHD Symptoms: Inattention

Childhood	Adulthood
Difficulty paying attention in class	Difficulty paying attention at work or in conversations
Avoids homework	Avoids completing forms or reviewing lengthy papers
No follow-through Incomplete assignments	Fails to finish household chores or tasks in the workplace; inefficient
Daydreaming Doesn't listen	Paralyzing procrastination Late/misses appointments
Has difficulty organizing tasks Works slowly	Disorganized Messy Poor time management Fail to meet deadlines
Loses things, such as school materials and books	Loses things such as glasses, wallets, keys, mobile phones





Adler L, *et al. Psychiatr Clin North Am*. 2004;27:187-201. ; American Psychiatric Association. *DSM*-5. 2013:59-65.; Goodman DW, et al. *Postgrad Med*. 2011;123(5):14-26.; Weiss MD, *et al. J Clin Psychiatry*. 2004;65:27-37.

THE PDF NARRATIVE

- PROCRASTINATION
- DISTRACTIBILITY
- FORGETFULNESS

Lifetime Course of ADHD Symptoms: Hyperactivity-Impulsivity

Childhood	Adulthood
Running, climbing, jumping	Restlessness Driving at high speed
Can’t stay seated	Can’t sit through meetings Can’t relax
Excessive talking	Excessive talking
On to go/driven by motor	Can’t tolerate frustration Impatient
Squirming, fidgeting	Inefficiencies at work
Can’t play/work quietly	Self-selects very active job
Can’t wait turn	Can’t wait in line
Interrupts others Blurts out answers	Interrupts others/intrudes Makes inappropriate comments Quits job

Adler L, *et al. Psychiatr Clin North Am*. 2004;27:187-201. ; American Psychiatric Association. *DSM*-5. 2013:59-65.
Goodman DW, et al. *Postgrad Med*. 2011;123(5):14-26.; Weiss MD, *et al. J Clin Psychiatry*. 2004;65:27-37.

GENETICS

Heritability estimates range from 60 – 90%

Parents with ADHD have a better than 50% chance of having a child with ADHD

Genes related to dopaminergic activity are associated with ADHD

Faraone, S.V. and A.E. Doyle, The nature and heritability of attention-deficit/hyperactivity disorder. Child and Adolescent Psychiatric Clinics of North America, 2001. 10(299-316).
Candidate gene studies of ADHD: a meta-analytic review. Gizer IR, Ficks C, Waldman ID Hum Genet. 2009 Jul; 126(1):51-90.

Diagnosis

Rating Scales

The CADDRA Toolkit provides several assessment forms to screen for general mental health challenges as well as the specific impairments associated with ADHD.

Children	SNAP-IV, WFIRS-P, CADDRA Teacher Assessment form
Adolescents	ASRS, WFIRS-S, WFIRS-P, CADDRA Teacher Assessment form
Adults	ASRS, WFIRS-S

SNAP-IV-26 – Teacher/Parent Rating Scale

Inattention (1-9)

Hyperactivity/ Impulsivity (10-18)

Oppositional Defiant Disorder (19-26)

For each item, check the column which best describes this child:	Not At All	Just A Little	Quite A Bit	Very Much
1. Often fails to give close attention to details or makes careless mistakes in schoolwork or tasks				
2. Often has difficulty sustaining attention in tasks or play activities				
3. Often does not seem to listen when spoken to directly				
4. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties				
5. Often has difficulty organizing tasks and activities				
6. Often avoids, dislikes, or reluctantly engages in tasks requiring sustained mental effort				
7. Often loses things necessary for activities (e.g., toys, school assignments, pencils, or books)				
8. Often is distracted by extraneous stimuli				
9. Often is forgetful in daily activities				
10. Often has difficulty maintaining alertness, orienting to requests, or executing directions				
11. Often fidgets with hands or feet or squirms in seat				
12. Often leaves seat in classroom or in other situations in which remaining seated is expected				
13. Often runs about or climbs excessively in situations in which it is inappropriate				
14. Often has difficulty playing or engaging in leisure activities quietly				
15. Often is "on the go" or often acts as if "driven by a motor"				
16. Often talks excessively				
17. Often blurts out answers before questions have been completed				
18. Often has difficulty awaiting turn				
19. Often loses temper				
20. Often argues with adults				
21. Often actively defies or refuses adult requests or rules				
22. Often deliberately does things that annoy other people				
23. Often blames others for his or her mistakes or misbehavior				
24. Often touchy or easily annoyed by others				
25. Often is angry and resentful				
26. Often is spiteful or vindictive				

CADDRA. Canadian ADHD Practice Guidelines, Fourth Edition, 2018.

Adult ADHD Self-Report Scale (ASRS)

Adult ADHD Self-Report Scale (ASRS) (cont)

PART B					
7. How often do you make careless mistakes when you have to work on a boring or difficult project?					
8. How often do you have difficulty keeping your attention when you are doing boring or repetitive work?					
9. How often do you have difficulty concentrating on what people say to you, even when they are speaking to you directly?					
10. How often do you misplace or have difficulty finding things at home or at work?					
11. How often are you distracted by activity or noise around you?					
12. How often do you leave your seat in meetings or in other situations in which you are expected to stay seated?					
13. How often do you feel restless or fidgety?					
14. How often do you have difficulty unwinding and relaxing when you have time to yourself?					
15. How often do you find yourself talking too much when you are in social situations?					
16. When you're in a conversation, how often do you find yourself finishing the sentences of the people you are talking to, before they can finish it themselves?					
17. How often do you have difficulty waiting your turn in situations when turn taking is required?					
18. How often do you interrupt others when they are busy?					

www.caddra.ca

DUCKS

IF WHAT YOU SEE…

- ✓ **WALKS LIKE A DUCK**
- ✓ **QUACKS LIKE A DUCK**
- ✓ **LOOKS LIKE A DUCK**

METAMORPHOSIS

NEGATIVE OUTCOMES

FAMILY HISTORY

WHAT IS IT?

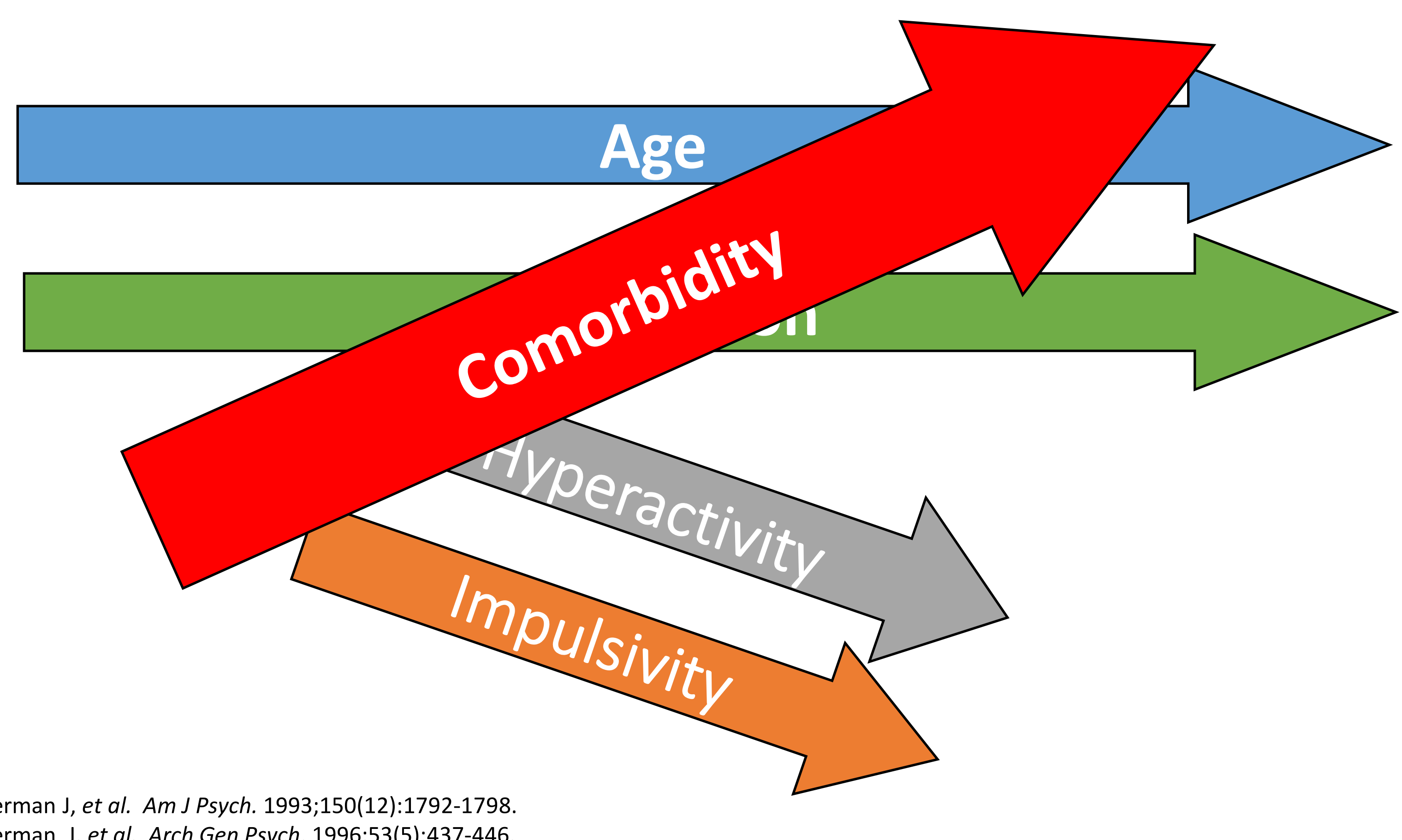
SOPHIE……….WHAT NEXT

- SNAP IV 26 FOR PARENT AND TEACHER.
- ASRS??????????? ……..DAD

RESULTS FOR SOPHIE AND DAD

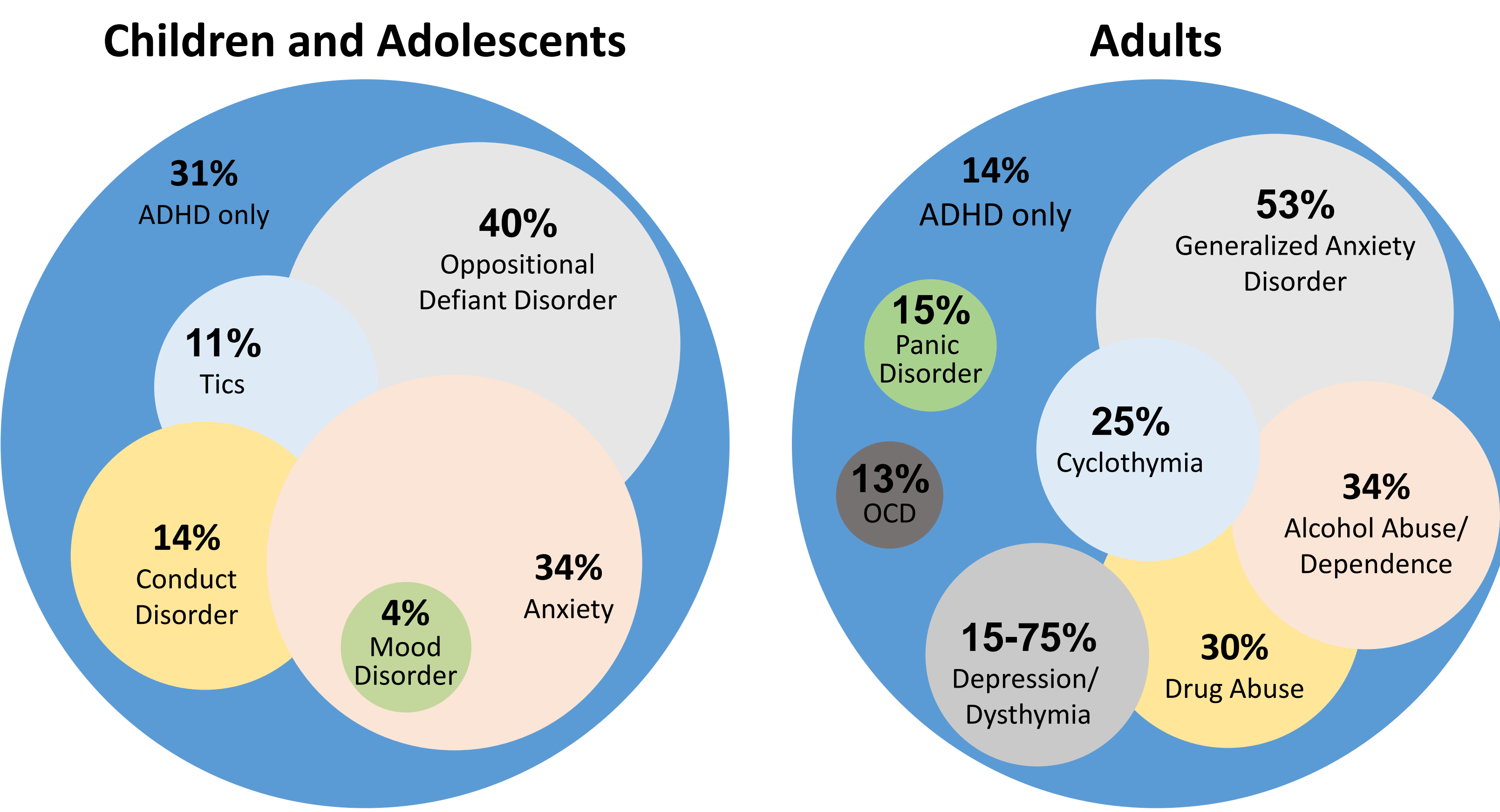
- SOPHIE: SNAP 1V 26: IA 8/9, HI 7/9, ODD 6/8
- DAD: ASRS PART A 3/6, PART B 5/12 AND WIFE COMPLETES AT 6/6 AND 11/12 AS SHE ALSO DOES THE ACCOUNTING AND ORGANIZATION FOR THE BUSISNESS

Challenges for diagnosis



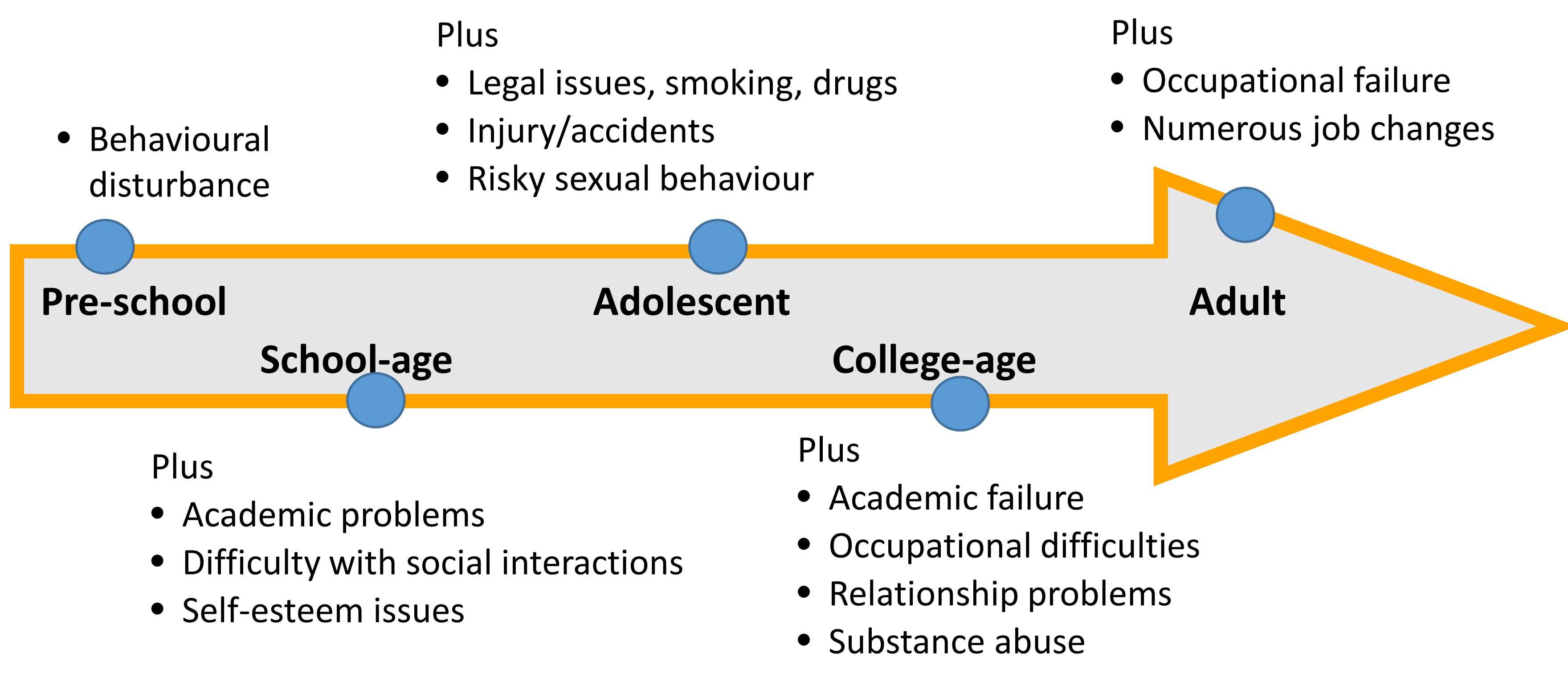
Biederman J, *et al.* *Am J Psych*. 1993;150(12):1792-1798.
Biederman J, *et al.* *Arch Gen Psych*. 1996;53(5):437-446.
Shekim WO, *et al. Compr Psych*. 1990;31(5):416-425.

Challenges for diagnosis:
ADHD Comorbidities



Barkley RA. 2nd ed. 1998:152-213.
Biederman J, *et al.* *Am J Psych.* 1993;150(12):1792-1798.
Biederman J, *et al.* *Arch Gen Psych*. 1996;53(5):437-446.
Shekim WO, *et al. Compr Psych*. 1990;31(5):416-425.
The MTA Cooperative Group. *Arch Gen Psych.* 1999;56(12):1073-1086.

DEVELOPMENTAL IMPACT OF ADHD



Impact of Untreated and Under-Treated ADHD

ADHD Patient

Health Care System

50% ↑ bike accidents[1]

33% ↑ ER visits[2]

2-4 x more motor vehicle crashes[3-5]

Employer

↑ Absenteeism[14]

and

↓ Productivity[14]

School & Occupation

46% Expelled[6]

35% Drop Out[6]

Lower Occupational Status[7]

Society

Substance Use Disorders (SUD)

2 X Risk[8], Earlier Onset[9]

Less Likely to Quit SUD in Adulthood[10]

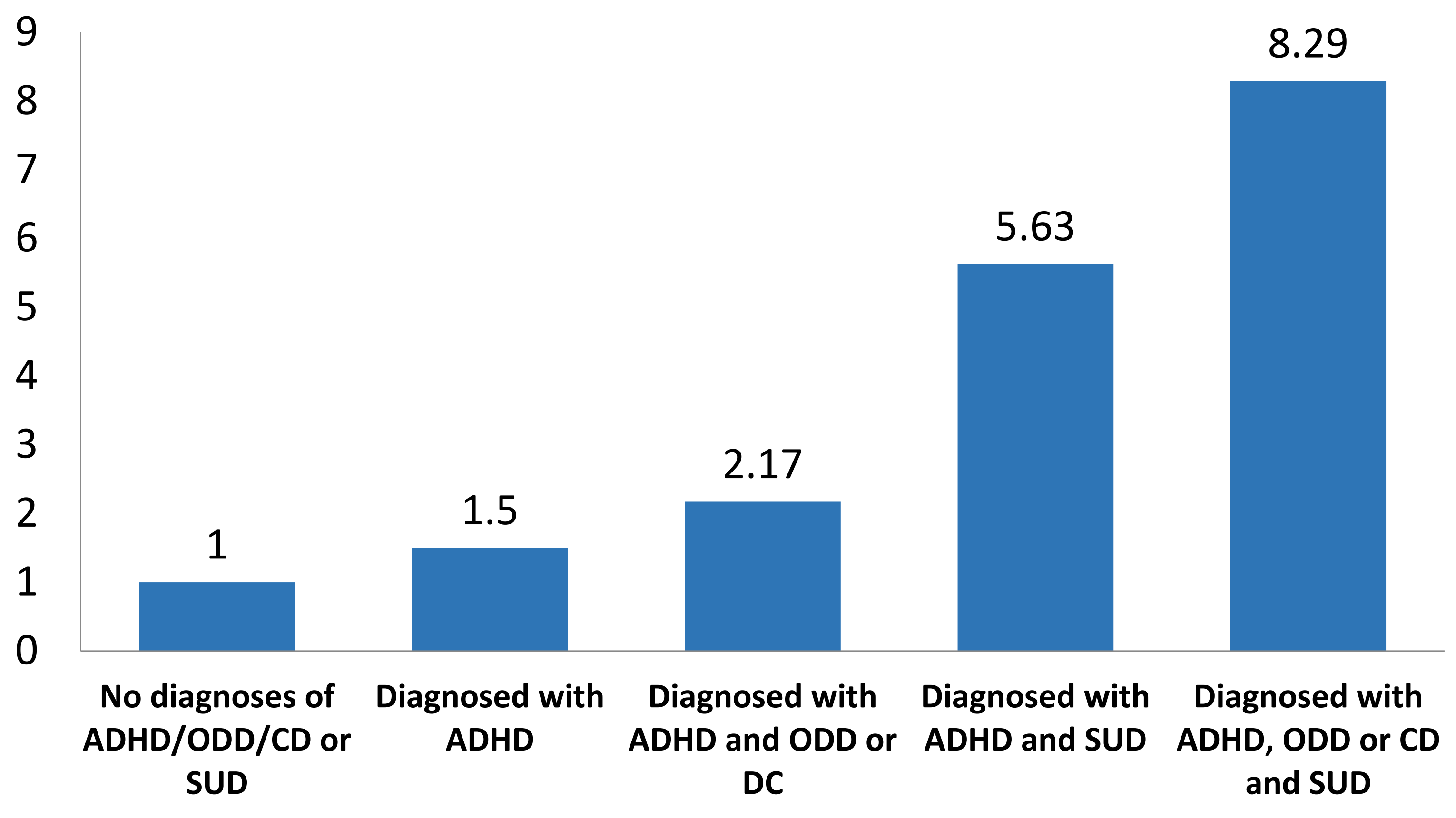
Family

3-5x ↑ Parental Divorce or Separation[11,12]

2-4 x ↑ Sibling Fights[13]

1. DiScala et al., 1998
2. Liebson et al., 2001
3. NHTSA, 1997
4-5. Barkley et al., 1993; 1996
6. Barkley, et al., 1990
7. Manuzza et al., 1997
8. Biederman et al., 1997
9. Pomerleau et al., 1995
10. Wilens et al., 1995
11. Barkley, Fischer et al., 1991
12. Brown & Pacini, 1989.
13. Mash & Johnston, 1983
14. Noe et al., 1999

Mortality Rate Ratio



ADHD = Attention Deficit Hyperactivity Disorder; CD = Conduct Disorder; ODD = Oppositional Defiant Disorder; SUD = Substance Use Disorder.
Dalsgaard S et al. Lancet 2015: 385: 2190-96.

HOW TO WE TREAT SOPHIE?

- WHAT ABOUT DAD?

TREATMENT

- NON-PHARMACOLOGICAL PILLS DON'T BUILD SKILLS
- PHARMACOLOGICAL: CORNERSTONE TO SUCCESSFUL MANAGEMENT

GUIDE TO ADHD PSYCHOSOCIAL INTERVENTIONS

At Home

Instructional
- Make eye and/or gentle physical contact before giving one or two clear instructions. Have instructions repeated back, or confirm they were understood, before proceeding

Behavioral
- Use a positive approach and calm tone of voice. Teach calming techniques to de-escalate conflict
- Use praise, catch them being good (playing nicely)
- Set clear attainable goals and limits (homework and bedtime routines, chores) and connect them to earning privileges, special outings etc.
- Use positive incentives and natural consequences: *When you…, then you may…*
- Empathy statements can be useful, such as *I understand*
- Adults should model emotional self-regulation and a balanced lifestyle (good eating and sleep habits, exercise and hobbies)
- Choices should be limited to two or three options

Environmental
- Structure and routine are essential. Parents/partners must be united, consistent, firm, fair and follow through
- Encourage prioritizing instead of procrastination
- Post visual reminders (rules, lists, sticky notes, calendars) in prominent locations
- Use timers/apps for reminders (homework, chores, limiting electronics, paying bills)
- Keep labeled, different coloured folders or containers in prominent locations for items (keys, electronics).
- Find the work area best suited to the individual (dining table, quiet area)
- Break down tasks
- Allow movement breaks
- Allow white noise (fan, background music) during homework or at bedtime

At School

Instructional
- Keep directions clear and precise
- Get student's attention before giving instructions
- Check understanding and provide clarification as needed
- Actively engage the student by providing work at the appropriate academic level

Behavioral
- Provide immediate and frequent feedback
- Use direct requests – *when…then*
- Visual cues for transitions
- Allow for acceptable opportunities for movement-"walking passes"

Environmental
- Preferential seating
- Quiet place for calming down

Accommodations
- Chunk and break down steps to initiate tasks
- Provide visual supports to instruction
- Reduce the amount of work required to show knowledge
- Allow extended time on tests and exams
- Provide note taker or access to assistive technology
- Supports can include the CADDRA psychoeducational and accommodations template
- Request school support services

At Work

Accommodations
- Identify accommodation needs
- Provide CADDRA workplace accommodations template

Counsel
- Suggest regular and frequent meetings with manager and support collaborative approach
- Set goals, learn to prioritize, review progress regularly
- Identify time management techniques that work for the client, e.g. using a planner, apps
- Declutter and create a work-friendly environment

Tools
- Organizational apps and/or productivity websites caddra.ca/medical-resources/psychosocial-information

Relationships

- Understand the impact ADHD can have on relationships with partners, family, friends, teachers, peers and co-workers.
- Recognize and accept ADHD can cause unintended friction and frustration between parent and child as well as between partners (e.g. difficulties with self-regulation, time management difficulties)
- Learn how to listen and communicate effectively
- Organize frequent time to communicate (don't just talk) to discuss goals and plans (what works, what doesn't) within home, educational and work environments
- Schedule regular fun with family, partner, friends
- Practice relaxation and mindfulness techniques caddra.ca/medical-resources/psychosocial-information
- Stay calm, be positive, recognize/validate and celebrate strengths!

Other referrals may be needed:

- Psychologist
- Tutor, Family Therapist
- Parenting Programs
- Social Skills Program
- Organizational Skill Course
- Occupational Therapist
- Speech and Language
- Audiologist
- Learning Strategist
- ADHD Coach
- Vocational Coach

For further information, please refer to the Psychosocial Interventions and Treatments chapter, Canadian ADHD Practice Guidelines at caddra.ca

Version: October 2016

Guide to ADHD Psychoeducation

What is ADHD?
Attention Deficit Hyperactivity Disorder is a neurodevelopmental condition with symptoms existing along a continuum from mild to severe. It occurs across the life span.

How is ADHD Treated?
Treatment should be **multimodal.** Incorporating different interventions, such as education, medication, and behavioral modifications/motivational interviewing/psychotherapy, produces a better outcome.

Treatment must be collaborative among the physician, the patient, and the family. It should be targeted to each individual's needs and goals, which may change over time.

Two important components of a multimodal approach:

PSYCHOEDUCATION
Psychoeducation should be the first intervention. Educating the family/patient about ADHD (symptoms, functional impairment, possible comorbidities and treatment) will ensure a more successful outcome.

PSYCHOSOCIAL INTERVENTIONS
Psychosocial interventions can reduce impairments associated with ADHD symptoms and improve overall quality of life. Interventions can be **cognitive** or **behavioral**.

Psychoeducation

Discover
- What does the individual/family know about ADHD?

Demystify
- Myths about ADHD
- Diagnosis and assessment processes

Instill Hope
- Evidence-based treatments and interventions **do** exist and **will** promote a positive outcome

Educate
- Importance of combining pharmacological and psychosocial interventions
- Risks and benefits

Empathize
- Acknowledge feelings of discouragement, grief, and frustration.

Encourage
- A strength-based approach
- Make more positive than negative comments
- Discourage criticisms

Recognize
- Appropriate behavior, whether observed or reported
- Goals achieved

Be Sensitive
- Ethnic, cultural and gender issues may shape the perception and beliefs about ADHD and its treatment

Motivate
- Nurture strengths and talents
- Encourage skills

Promote
- Regular exercise
- Consistent sleep hygiene
- Healthy nutrition routine

Humour
Humour can defuse awkward, tense situations and avoid or reduce conflict

Give Resources
- Websites
- Local community resources
- Book lists

For further information, please refer to the Psychosocial Interventions and Treatments chapter, Canadian ADHD Practice Guidelines at caddra.ca

Version: October 2016

CADDRA Guide to ADHD Pharmacological Treatments in Canada - 2019

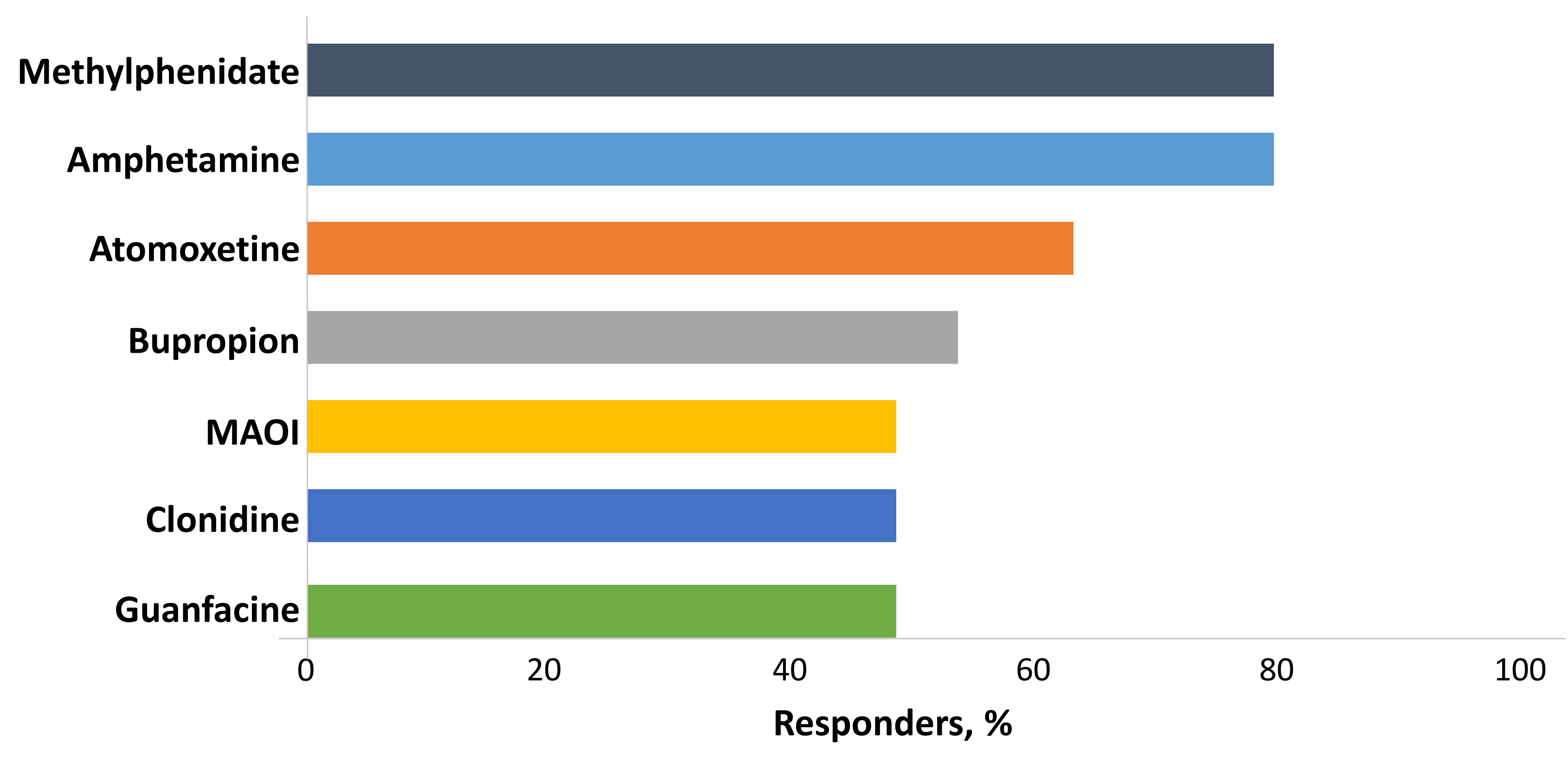
Medications available and illustrations	Characteristics	Duration of action [1]	Starting dose [2]	Dose titration as per product monograph	Dose titration as per CADDRA www.caddra.ca
AMPHETAMINE-BASED PSYCHOSTIMULANTS					
Dexedrine® tablets 5 mg **Dexedrine®** spansules 10, 15 mg	Pill can be crushed [3] Spansule (not crushable)	~ 4 h ~ 6 - 8 h	Tablets = 2.5 to 5 mg BID 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 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 Max. dose/day: All ages = 60 mg	↑ 10 mg at weekly intervals Max. dose/day: Children = 60mg Adolescents and Adults = 70 mg
METHYLPHENIDATE-BASED PSYCHOSTIMULANTS					
Methylphenidate short acting, tablets 5 mg (generic) 10, 20 mg (Ritalin®)	Pill can be crushed [3]	~ 3 - 4 h	5 mg b.i.d. to t.i.d. Adult = consider q.i.d.	↑ 5 - 10 mg at weekly intervals Max. dose/day: All ages = 60 mg	↑ 5 mg at weekly intervals Max. dose/day: Children and Adolescents = 60 mg Adults = 100 mg
Biphentin® Capsules 10, 15, 20, 30, 40, 50, 60, 80 mg	Sprinkable Granules	~ 10 - 12 h	10 - 20 mg q.d. a.m.	↑ 10 mg at weekly intervals Max. dose/day: Children and Adolescents = 60 mg Adults = 80 mg	↑ 5 - 10 mg at weekly intervals Max. dose/day: Children = 60 mg Adolescents and Adults = 80 mg
Concerta® Extended Release Tabs 18, 27, 36, 54 mg	Pill needs to swallowed whole to keep delivery mechanism intact	~ 12 h	18 mg q.d. a.m.	↑ 18 mg at weekly intervals Max. dose/day: Children = 54 mg 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 Granules	~ 16 h	25 mg q.d. a.m.	↑ 10-15 mg in intervals of no less than 5 days Max. dose/day: Children and Adolescents = 70 mg Adults = 100 mg	↑ 10-15 mg in intervals of no less than 5 days Max. dose/day: Children and Adolescents = 70 mg Adults = 100 mg
NON PSYCHOSTIMULANT - SELECTIVE NOREPINEPHRINE REUPTAKE INHIBITOR					
Strattera® (Atomoxetine) Capsules 10, 18, 25, 40, 60, 80, 100 mg	Capsule needs to swallowed whole to reduce GI side effects	Up to 24 h	Children and Adolescents : 0.5 mg/kg/day Adults = 40 mg q.d. for 7-14 days	Maintain dose for a minimum of 7 - 14 days before adjusting: Children = 0.8 then 1.2 mg/kg/day 70 kg or Adults = 60 then 80 mg/day Max. dose/day : 1.4 mg/kg/day or 100 mg	Maintain dose for a minimum of 7 - 14 days before adjusting: Children = 0.8 then 1.2 mg/kg/day 70 kg or Adults = 60 then 80 mg/day 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 swallowed whole to keep delivery mechanism intact	Up to 24 h	1 mg q.d. (morning or evening)	Maintain dose for a minimum of 7 days before adjusting by no more than 1 mg increment weekly Max. dose/day: Monotherapy: 6-12 years = 4 mg, 13-17 years = 7 mg As adjunctive therapy to psychostimulants 6-17 years = 4 mg	Maintain dose for a minimum of 7 days before adjusting by no more than 1 mg increment weekly Max. dose/day: Monotherapy: 6-12 years = 4 mg, 13-17 years = 7 mg As adjunctive therapy to psychostimulants 6-17 years = 4 mg

Note: Illustrations do not reflect real size of pills/capsules. For specific details on how to start, adjust and switch ADHD medications, clinicians are invited to refer to the Canadian ADHD Practice Guidelines (www.caddra.ca)
[1] Pharmacokinetics and pharmacodynamic response vary from individual to individual. The clinician must use clinical judgement as to the duration of efficacy and not solely rely on reported values for PK and duration of effect.
[2] Starting doses are from product monographs. CADDRA recommends generally starting with the lowest dose available. [3] Higher abuse potential. * Vyvanse 70 mg is an off-label dosage for ADHD treatment in Canada.

Document developed by Annick Vincent MD (www.attentiondeficit-info.com) and Direction des communications et de la philanthropie, Laval University, with the special collaboration of CADDRA.

Version: April 2019

ADHD Pharmacotherapy Responsiveness



MAOI, Monoamine-oxidase inhibitor

1. Wilens T, *et al.* Massachusetts General Hospital Child & Adolescent Psychopharmacology Annual Conference. 2000;
2. Wilens T, *et al. J. Atten. Disord.* 2002;5(4), 189–202; 3. Wilens T. *Drugs.* 2003;63(22), 2395–2411.

Adverse Effects of Stimulants

Adverse effects

- Methylphenidate and dextroamphetamine have similar side effect profiles
  - Decreased appetite
  - Insomnia
  - Upset stomach
  - Headache
  - Irritability
- Side effects decrease with time

1. Klein RG. *Bratisl Lek Listy*. 1991;92(11):534-9; 2. Wilens TE, *et al. Psychiatr Clin North Am*. 1992;15(1):191-222; 3. Pelham WE Jr, *et al. Pediatrics*. 1990;86(2):226-37.

SOPHIE GRADUATES

- MOVING FROM BOWEN ISLAND TO TORONTO.
- NEEDS ONGOING MANAGEMENT AND PRESCRIBING OF PSYSCHOSTIMULANTS.
- SHOULD SHE GO TO THE FRIENDLY WALK IN CLINIC?
- CADDRA TRANSFER LETTER DETAILING ESSENTIALS OF CARE

SUMMARY: TAKE HOME POINTS

- DUCKS: if it quacks (PDF narrative), walks (metamorphosis of symptoms and impairment), and looks like a duck (family history), then you are likely dealing with a duck
- PDF FILE: procrastination, distractibility, and forgetfulness
- ACE SCORE: adverse childhood experience score
- ESP: educate patients and family, skills training, and evidenced based prescribing