

ADHD Foundation Conference

ADHD, Youth Justice & The Law

“THE JURY IS NO LONGER OUT”

ADHD & Substance Use Disorder

Dr Dianne Grocott MBBS (UWA 1983), FRANZCP (1989)

Saturday 28th November 2020

Psychiatrist, for 30 years. Trained in Perth, now in Private Practice, Melbourne

Fellow Royal Australian & New Zealand College of Psychiatry (FRANZCP), 1989.
Faculties of Addiction Psychiatry & of Adult Psychiatry with the new ADHD Network.

Co-founder Victorian Adult ADHD Interest Group (VAADHDIG), 2015.

Foundation Member of Australian ADHD Professionals Association (AADPA), 2017.

Member International Collaboration of ADHD and Substance Abuse (ICASA), 2018.

Disclaimer - sponsored by Shire/Takeda to attend educational events; honoraria to chair educational events

How can we make a difference?

- We screen our kids in school for Vision and Hearing so they can function well.
- So why not for Attention?
- If a large number of Youth in the Justice System have impaired control of their attention, thoughts, movements, impulses and emotions (ie have ADHD) why don't we screen and treat these Australians so they can function well?



The verdict has been delivered regarding the cost of untreated ADHD in Australia and in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD and substance use disorder (SUD)

The verdict has been delivered regarding how to treat Adolescents with ADHD+SUD

The verdict has been delivered regarding how to treat ADHD and comorbidities in prisons

WE AWAIT YOUR ACTION

WHAT IS ADHD?

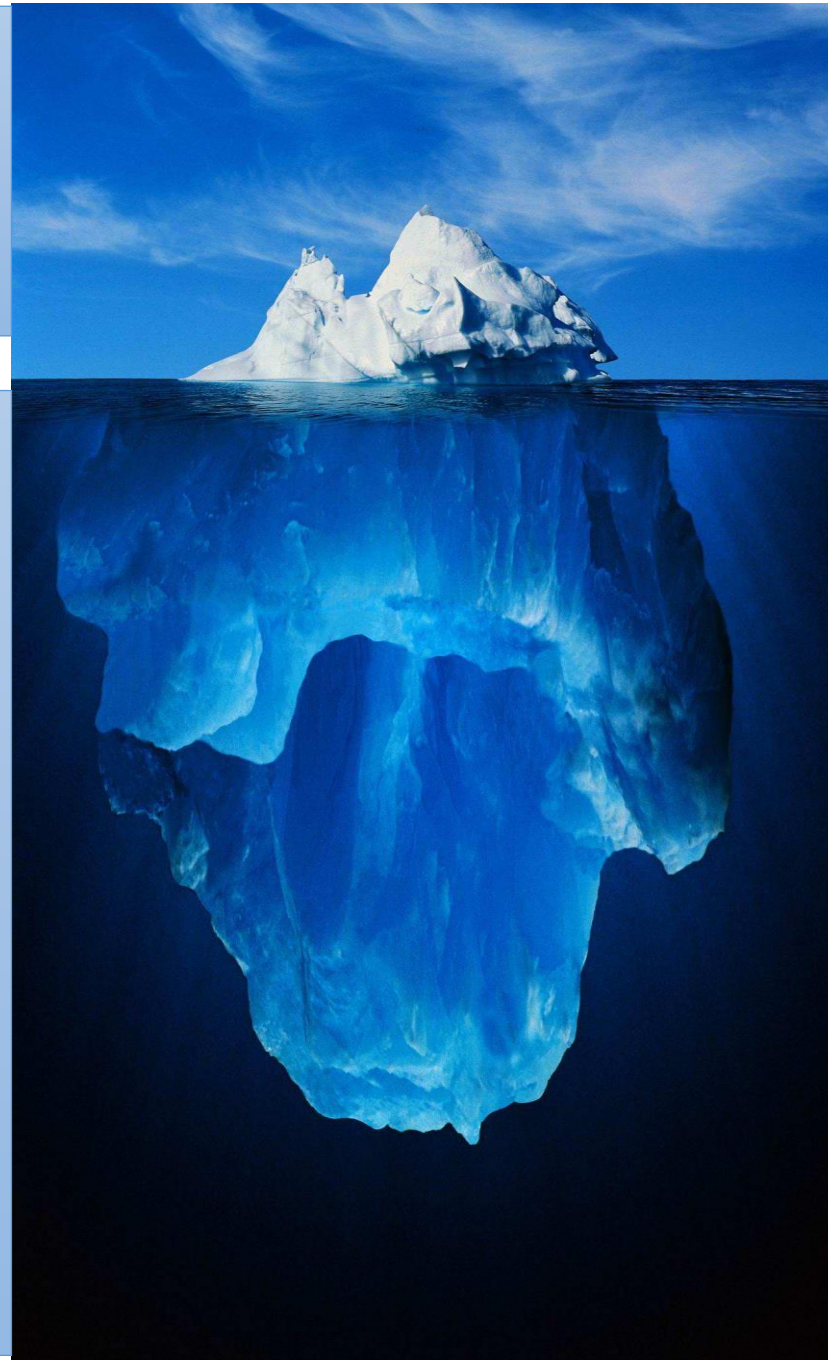
Diagnostic criteria
only differentiates
between disorders.
eg Lion = mane,
Tiger = stripes.

Doesn't mention
the teeth, claws,
four legs & tail

And doesn't
indicate how to
tame them.

DIAGNOSIS
Observable
Measurable
Differentiates

**LIVED
EXPERIENCE**
Symptoms
Comorbidities
Supports
Compensations
Consequences



**Inattention
+/-
Hyperactivity
& Impulsivity**

**Emotional -
dysregulation
Busy brain
Anxiety
Addictions
Avoidance
Losses
Shame
Skills
Nutrition
Environment
Genetics**

ADHD Brain is like a radio that is not tuned to the station, so you hear song and static noises



**Intermittent poor control
(dysregulation) of
Attention, Thoughts,
Movements, Impulses,
Behaviour and Emotions**

**Due to intermittently weak
dopamine and
noradrenaline messages
from Frontal Control centres
to subconscious regions of
the brain**

Noradrenaline is like the Volume knob: the song is louder but so is everything else



Noradrenaline is increased by movement, exercise, excitement, fear, worry, drama, conflict, deadlines, loud music, video games, risk taking, addictions, illicit stimulants (cocaine, meth) caffeine, energy drinks, & ADHD medication

Dopamine is like the tuning knob:
The song is heard clearly

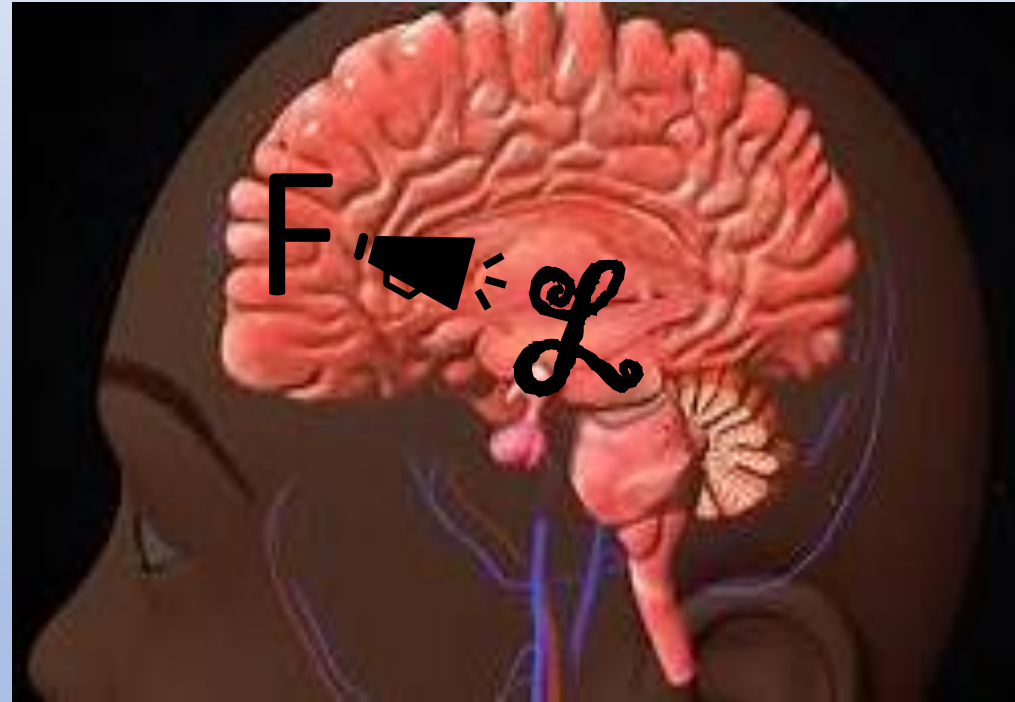


Dopamine is increased by anticipation of reward, achievement of goals, every pleasurable activity (whether healthy or not – including food, sex, relationships, addictive substances & behaviours) and ADHD meds

So where's the problem in the ADHD Brain?

Teacher has Laryngitis and the Classroom's in chaos

- **Frontal lobe:** “sees” two perspectives (now & later, good & bad, problem & solution) Like a parent or teacher, says NO to keep order
- **Limbic system:** like a classroom of kids emotions, habits, desires, movements, memories, all competing “Me, NOW”
- **ADHD Brain: The teacher has laryngitis**, so the messages are weak and classroom's in chaos
- **Stimulants give the Teacher a megaphone**
- **Atomoxetine soothes the laryngitis**
- **Guanfacine is like a Teachers Aide**, calming the kids
- **Pills don't teach Skills** but allow skills to be learned. Still have to learn the maths, and when good at this, don't need so much input from Teacher

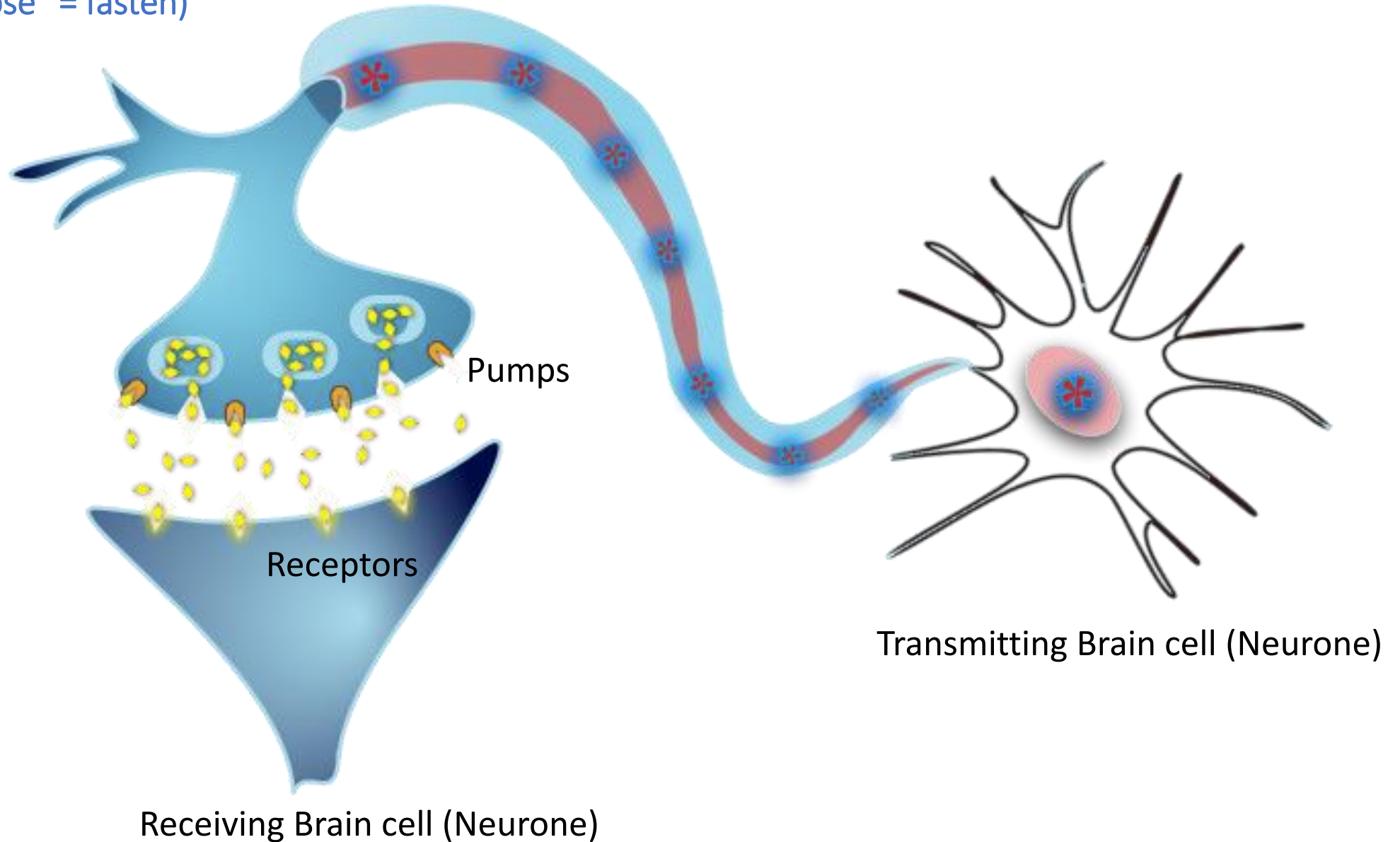


Synapse = Sending zones between brain cells

("syn" = together, "apse" = fasten)

Neurotransmitter
Messenger
chemicals
dopamine,
noradrenaline

1. Stored in bags
2. Sent into synapse
3. Lock and twist
Receptor
4. Recycled via
Transport pumps
"vacuum cleaners"
5. Stored for next
message



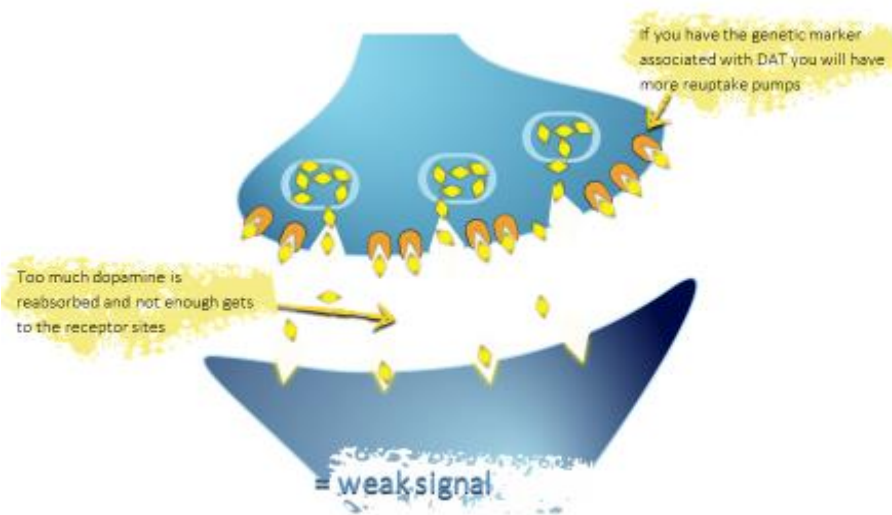
What's happening in the ADHD Brain with and without Medication?

ADHD = Too many “Vacuum cleaners” gives intermittent weak signals.

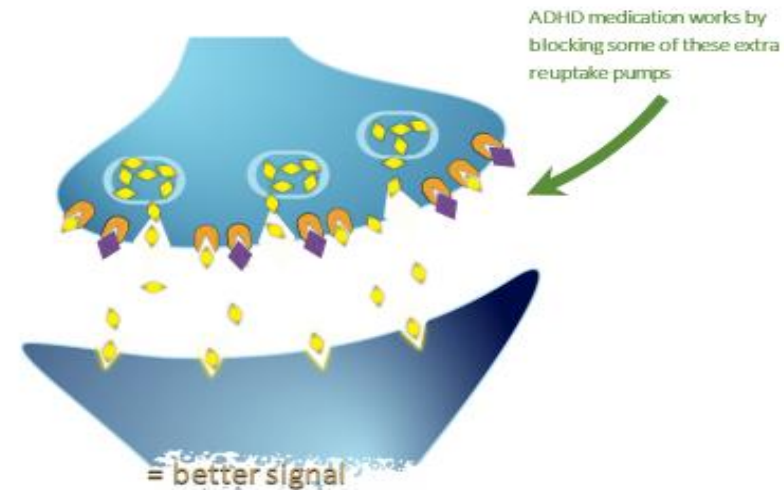
Can “try harder” and increase signal.

Or produce more NT's by natural means - exercise, goals, thoughts, situations

ADHD Medication plugs the excess vacuum cleaners - feel normal



ADHD – Weak signals



ADHD + medication – Better signals

The difference between Illegal and Legal Stimulants

Cocaine & Meth (ice, speed) plug vacuum cleaners which helps ADHD
But also stimulate then damage Receptors.

With less receptors, “need” drugs to get signal = Addiction
ADHD (Ritalin, Dex, Lisdex) meds don't plug Receptors so No Addiction.



Cocaine ↓ and Methamphetamine (speed, ice) ↓
plug Vacuum cleaners and Receptors and cause addiction

Ritalin ◆ and Dex ◆ don't affect Receptors so don't cause
addiction



So why do I sometimes function normally?

Because all these increase Dopamine and Noradrenaline in the synapses

- tasks I am good at
- exciting thoughts
- video games
- exercise, extreme sports, competition
- danger, fear
- Speeding, spending
- loud music
- deadlines
- conflict, drama
- stimulant chemicals (caffeine, nicotine, ice, cocaine),
- stimulant medication

Are there positives with ADHD ?

A Gift that's hard to unwrap



Common ADHD traits:

- Creative talent
- Intuitive
- Out-of-the-box thinking
- Entrepreneur
- Comedian
- Hyperfocus (sometimes)
- Warm-hearted
- Generous
- Passionate
- Good in a Crisis
- Athletic
- Novelty-seeking

People with Diabetes shouldn't be expected to just "try harder" to regulate their blood sugar levels.

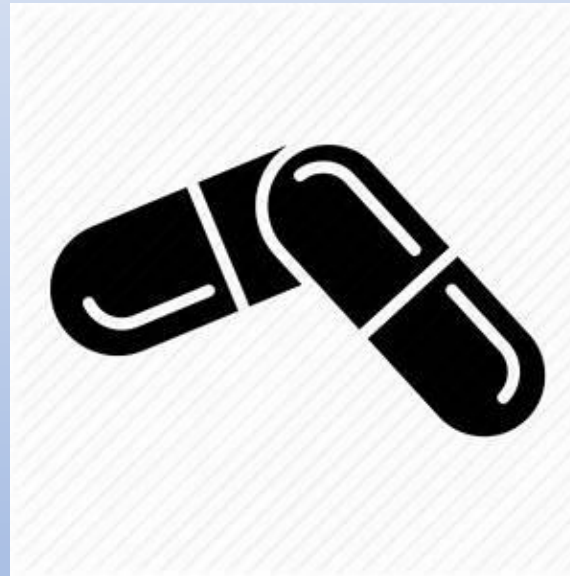


They are given Education, Medication and Coaching for Lifestyle Change

People with ADHD shouldn't be expected to just
“try harder” to regulate their dopamine levels.



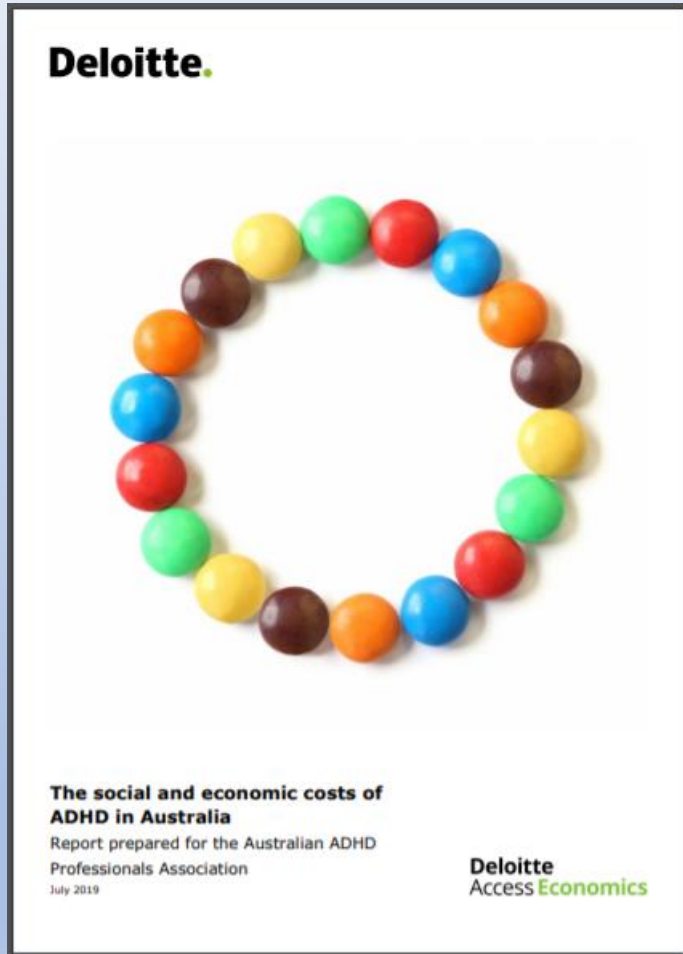
© Can Stock Photo - csp21153020



They should be given Education, Medication
and Coaching for Lifestyle Change

The verdict has been delivered regarding the cost of untreated ADHD in Australia and in the Justice System

.



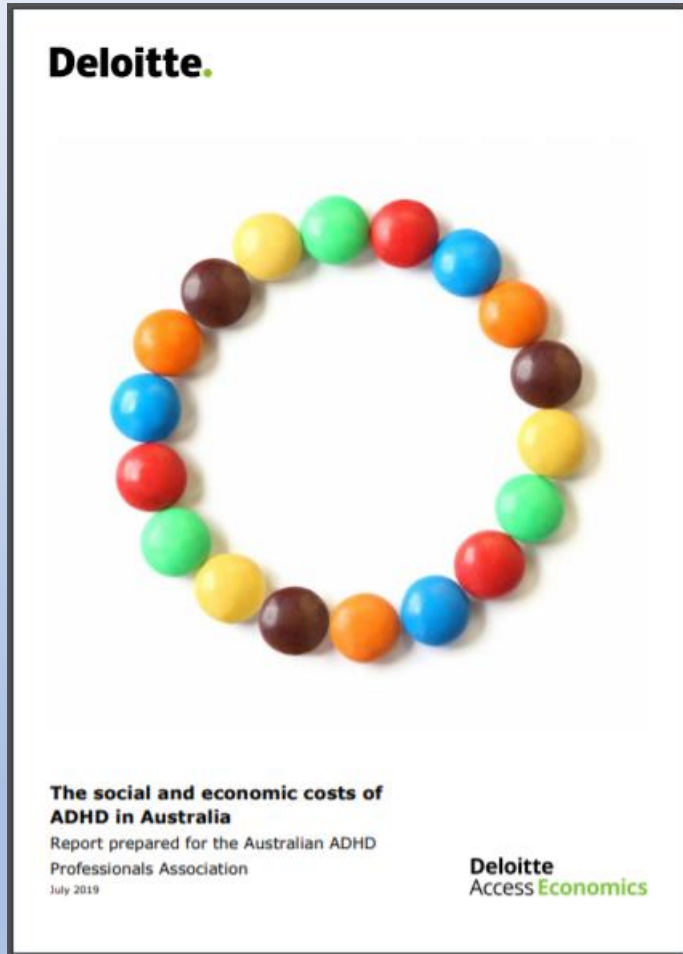
COST of ADHD in 2019

\$20 Billion =

Total cost of ADHD to Australian Economy

\$307 million =

Total cost of crime due to ADHD, including the cost to the justice system



WHY are People with ADHD more vulnerable to engage in antisocial and criminal behaviour?

- Their Biology and Behaviours
 - genetic poor control of impulses
 - genetic poor control of emotions
 - genetic poor memory & difficulty learning
 - genetic novelty-seeking
- Disengagement from education
- Comorbidities of
 - conduct disorder
 - and substance use disorders.

The verdict has been delivered regarding the cost of untreated ADHD in Australia and in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD in the Justice System

.



aadpa

AUSTRALIAN ADHD PROFESSIONALS ASSOCIATION

<https://aadpa.com.au/international-consensus-statement-on-adhd/>



World Federation of ADHD International Consensus Statement:
184 Evidence Based Conclusions about the Disorder (2020)

World Federation of ADHD International Consensus Statement

184 Evidence Based Conclusions about the Disorder (2020)



Crime and Delinquency

- #101 Likelihood of offending: ADHD 60% more likely convicted, 70% more likely incarcerated (Danish population)
- #102 Rate of ADHD in juvenile detention = 17% (24,000 males in 24 studies; 3,900 females in 12 studies)
- #103 Physical dating violence - ADHD twice as likely to be perpetrators, 65% more likely to be victims (USA N=5,000)
- #104 21,000 Icelandic adolescents; 14% interrogated by police, 15% made false confession. ADHD x2 false confession
- #105 ADHD 2.7 times likely to be victim of violent crime when aged 7-18 year old (Denmark N=678,000 children)

Adult ADHD Among NSW Prisoners: Prevalence and Psychiatric Comorbidity

Moore, E et al (Sharlene Kaye) *Journal of Attention Disorders* 2016, Vol. 20(11) 958-967

- Overall prevalence ADHD 200 NSW Prisoners = 17%
- Males: 15%, Females: 24%, Indigenous: 31%, Non: 10%
- ADHD had higher rates of nicotine, alcohol, stimulant, opioid, ecstasy, cannabis, BZDZ, but not cocaine
 - ADHD had higher rates of BPD, ASPD, MDD, social phobia, PTSD, suicidal thoughts than non-ADHD

Table 1. Prevalence of ADHD.

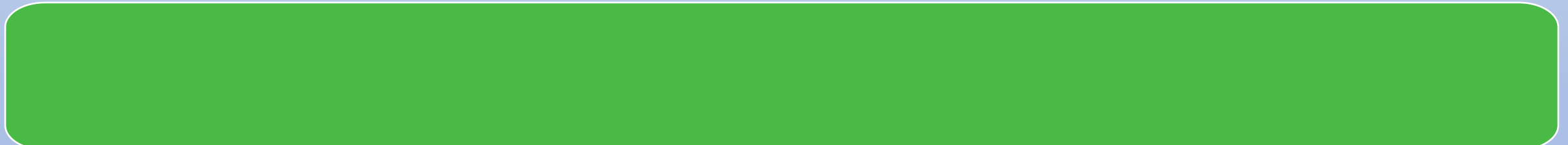
	Total % [95% CI]	Male % [95% CI]	Female % [95% CI]	Aboriginal % [95% CI]	Non-Aboriginal % [95% CI]
Screening assessment (N = 200)		(n = 150)	(n = 50)	(n = 53)	(n = 147)
ADHD positive (using ASRS 6-item)	35.0 ([28.5, 42.1])	36.7 ([29.1, 45.0])	30.0 ([18.3, 44.8])	45.3 ([31.8, 58.5])	31.3 ([24.0, 39.5])
Full assessment only (N = 88)		(n = 67)	(n = 21)	(n = 29)	(n = 59)
ADHD diagnosis (M.I.N.I. Plus)	17.0 ([10.2, 26.9])	14.9 ([7.8, 26.2])	23.8 ([9.1, 47.6])	31.0* ([16.0, 51.0])	10.2 ([4.2, 21.5])

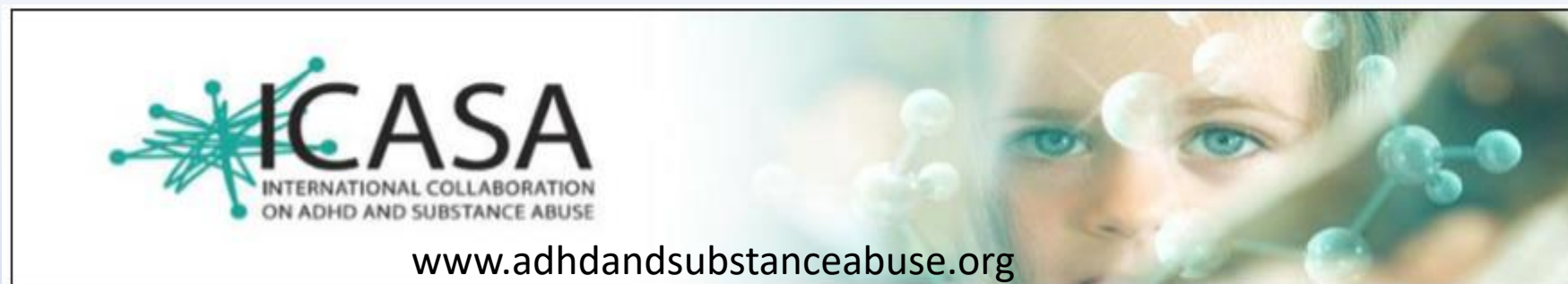
*p < .05. **p < .001.

The verdict has been delivered regarding the cost of untreated ADHD in Australia and in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD and substance use disorder (SUD)



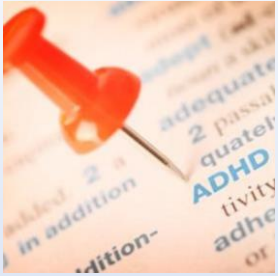


“ICASA aims to contribute to a substantial decrease in the proportion of ADHD patients developing an addiction/substance use disorder (SUD) and to substantially improve the detection, diagnosis and treatment of patients having both ADHD & SUD.



50 members in 15 countries

High Quality Research
Database
Network
Publications
Information Sharing
Guidelines
Textbook
Training



ICASA - IASP Study 2010-11

International **A**DHD in **S**ubstance use disorders **P**revalence study

- **11 countries - 3,588 Treatment seeking-SUD Patients worldwide**
- **Australia - 489 SUD Patients in 16 settings – 215 had ADHD** **Australian prevalence = 44%**
- **ADHD complicates the course of SUD**
 - earlier onset, greater severity of substance use, more difficult to treat, more relapses.
- **Increased harms in ADHD/SUD vs Non-ADHD/SUD populations**
 - inattention, carelessness, and impulsive risk-taking associated with ADHD.
 - high-risk behaviours - injecting, non-sterilising,
 - Early onset (<15yo) nicotine use
 - Current and past amphetamine use, Heavy alcohol use
 - Long duration (≥5 years) of alcohol, opiates other than heroin or methadone, and amphetamine
 - Comorbid depression, anxiety or personality disorder
 - Driving offences, licence suspensions, at-risk MVA's

<https://ndarc.med.unsw.edu.au/project/examining-prevalence-adhd-among-those-sud>

The verdict has been delivered regarding the cost of untreated ADHD in Australia and in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD and substance use disorder (SUD)

The verdict has been delivered regarding how to treat Adolescents with ADHD+SUD



ICASA - Guidelines 2018 (1)

International Consensus Statement on Screening, Diagnosis and Treatment of SUD Patients with Comorbid ADHD

Crunelle, C and ICASA Consensus Group *Eur Addict Res* 2018;24:43–51

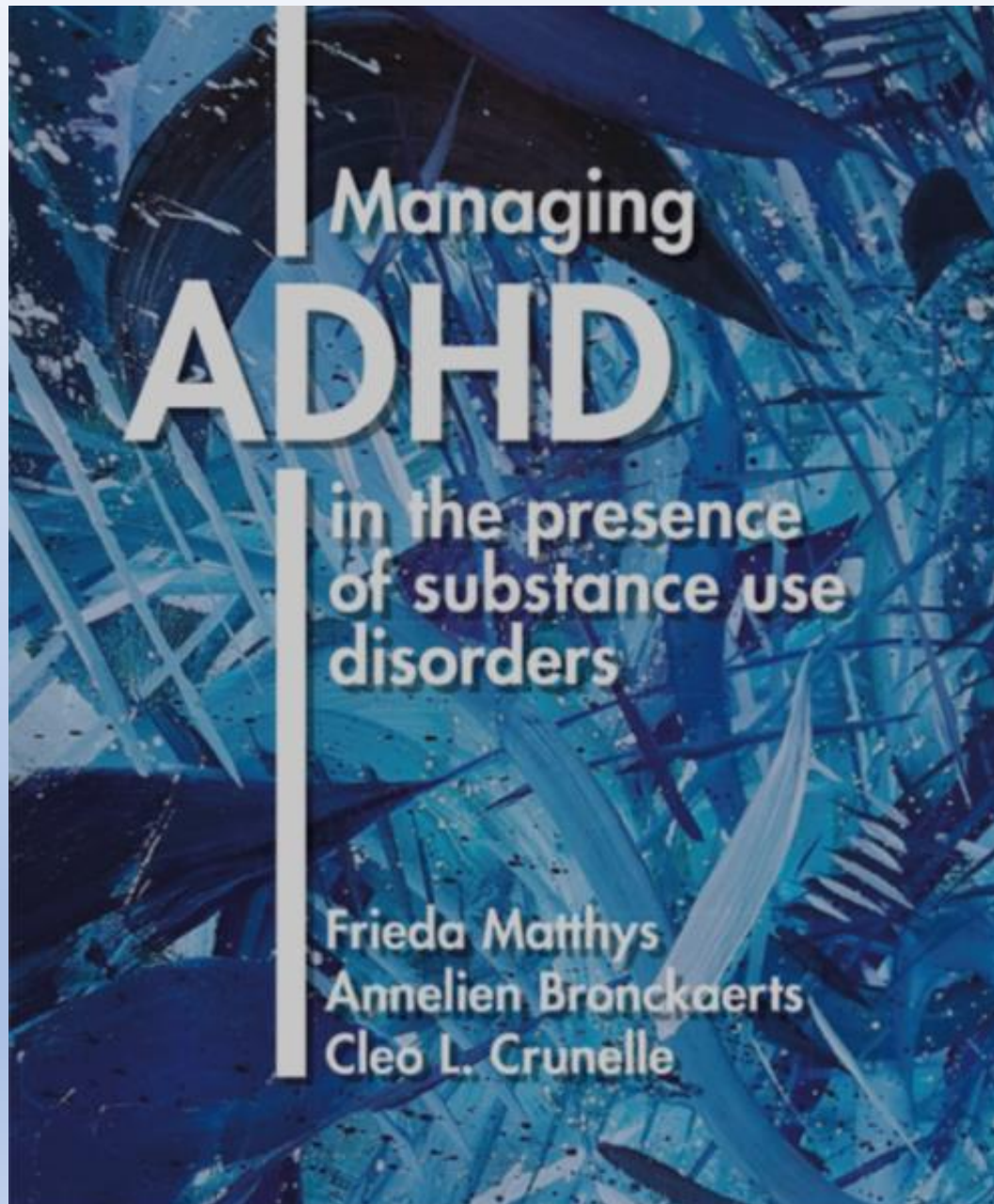
- Screen all SUD patients for ADHD
- ASRS, Wender Utah Rating Scale and Conners' Adult ADHD Rating Scale have been sufficiently validated as screeners.
- Diagnosis by a physician or psychologist trained in ADHD/SUD - questionnaires, semi-structured interviews, collateral history from family and school reports, longitudinal observation by staff to reduce the risk of over- or under-diagnosis.
- Anticipate other psychiatric comorbidities

ICASA - Guidelines 2018 (2)

International Consensus Statement on Screening, Diagnosis and Treatment of SUD Patients with Comorbid ADHD

Crunelle, C and ICASA Consensus Group [*Eur Addict Res* 2018;24:43–51](#)

- **Integrated** multimodal therapies for ADHD and SUD
- **Medication**
 - Psychostimulants - long acting, +/- high doses, limited supply
 - Methylphenidate, Lisdexamfetamine
 - Atomoxetine - alcohol, delayed onset
 - Treat SUD - anticraving, ORT etc
 - Treat other comorbidities – eg antidepressants
- **Psychotherapy**
 - Integrated CBT

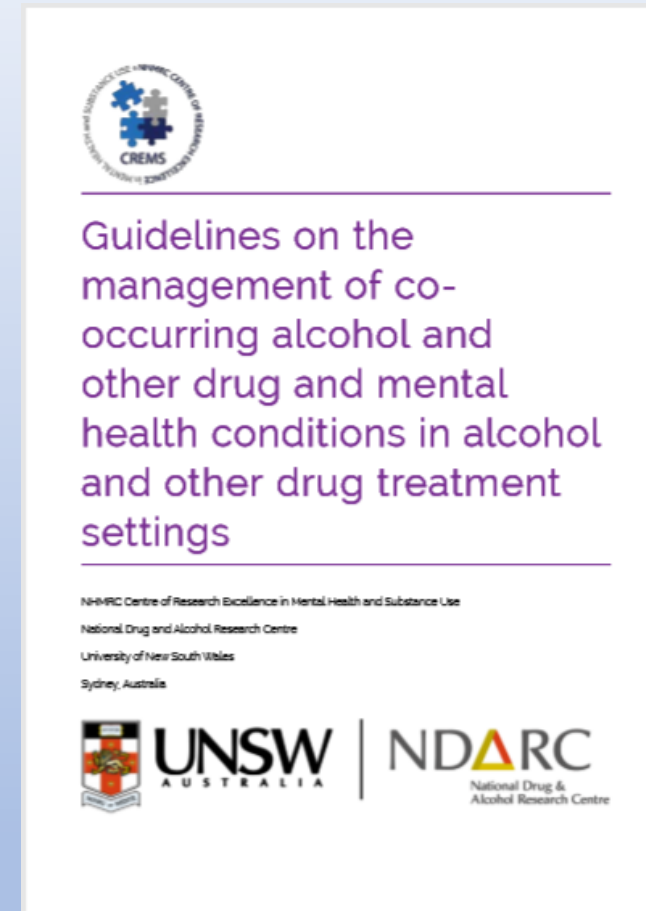
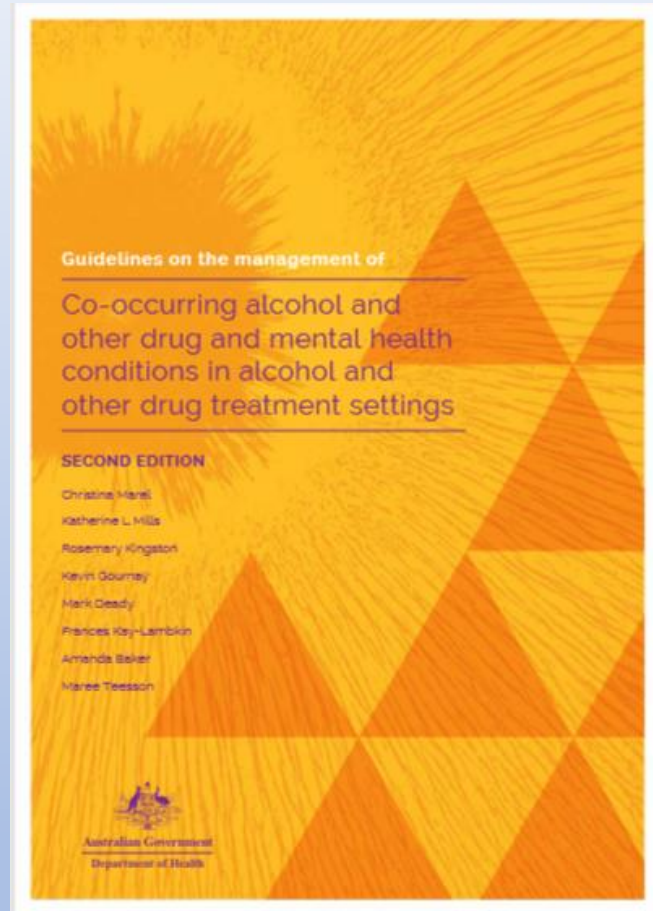


ICASA Textbook 2018

Table of Contents

- Guidelines ADHD/SUD
- Principles of treatment
- Modules
 - Psychoeducation
 - Planning/Organisation
 - Better Sense of Time
 - Reducing distractions
 - Managing SUD
 - Emotional Regulation
 - Negative Thoughts
 - Reducing Impulsivity
 - Social skills
 - Relapse Prevention
- Worksheets

Australian Comorbidity Guidelines AOD & ADHD (2014)

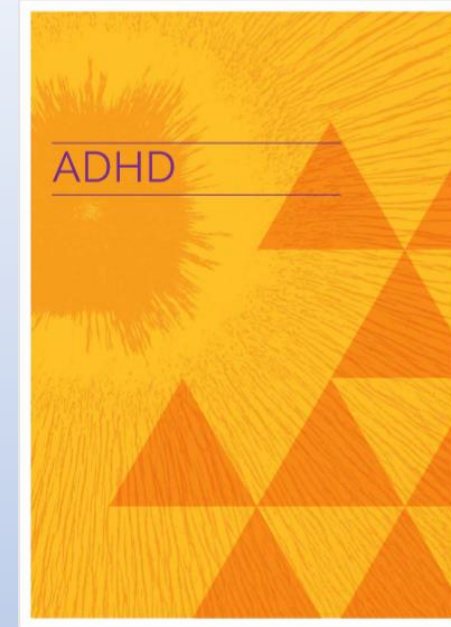


These are excellent guidelines, but there is no training on ADHD for addiction psychiatrists
<https://comorbidity.edu.au/sites/default/files/National%20Comorbidity%20Guidelines%202nd%20edition.pdf>

Australian Comorbidity Guidelines AOD & ADHD (2014)

Integrated multimodal approach

- Psychoeducation
- Psychotherapy – individual, group
- Peer & Family Support
- Pharmacotherapy
 - Methylphenidate, Dexamphetamine, Lisdexamfetamine, Atomoxetine,
- e-health interventions, smartphone Apps
- physical activity
- complementary and alternative therapies (e.g., dietary supplements).



Excellent guidelines but unfortunately ignored. The curriculum for training addiction psychiatrists does not mention ADHD

International Consensus Statement for the Screening, Diagnosis, and Treatment of Adolescents with Concurrent Attention-Deficit/Hyperactivity Disorder and Substance Use Disorder

Heval Özgen^{a,ξ} Renske Spijkerman^a Moritz Noack^b Martin Holtmann^b Arnt S.A. Schellekens^{c, d}
Geurt van de Glind^{d, e} Tobias Banaschewski^f Csaba Barta^{g, h} Alex Begemanⁱ Miguel Casas^j
Cleo L. Crunelle^k Constanza Daigre Blanco^{l-n} Søren Dalsgaard^o Zsolt Demetrovics^p
Jacomine den Boerⁱ Geert Dom^q Valsamma Eapen^r Stephen V. Faraone^s Johan Franck^t
Rafael A. González^{u, v} Lara Grau-López^{l-n, t} Annabeth P. Groenman^{w, x} Malin Hemphälä^t
Romain Ickick^{y, z, A} Brian Johnson^s Michael Kaess^{B, C} Máté Kapitány-Fövény^{D, E}
John G. Kasinathan^F Sharlene S. Kaye^G Falk Kiefer^H Maija Konstenius^t Frances R. Levin^I
Mathias Luderer^J Giovanni Martinotti^K Frieda I.A. Matthys^L Gergely Meszaros^M
Franz Moggi^N Ashmita P. Munasur-Naidoo^{O, P} Marianne Post^Q Sharon Rabinovitz^R
J. Antoni Ramos-Quiroga^{m, n, S, T} Regina Sala^U Abu Shafi^V Ortal Slobodin^W Wouter G. Staal^{X, Y}
Rainer Thomasius^Z Ilse Truter^a Michiel W. van Kernebeek^β Maria C. Velez-Pastrana^Y
Sabine Vollstädt-Klein^H Florence Vorspan^{z, δ, ε, ζ} Jesse T. Young^{θ, η, ι, κ} Amy Yule^λ
Wim van den Brink^{e, μ} Vincent Hendriks^{a, ξ}

Summary of International Consensus Statement for the Screening, Diagnosis, and Treatment of Adolescents with Concurrent ADHD and Substance Use Disorder (2020)

- **Risk of developing SUD**

ADHD increases risk of SUD - Childhood ADHD is a serious risk factor for developing SUD in adolescence

ADHD + CD/ODD even greater risk for SUD - ADHD + conduct disorder (CD) or oppositional defiant disorder (ODD) pose greater risks for developing SUD in adolescence

Stimulant medication DOESN'T lead to SUD - There is strong evidence that stimulant treatment of childhood ADHD does not increase the risk of developing SUD in adolescence

Stimulant medication protects against SUD - Stimulant treatment of childhood ADHD reduces risk of developing SUD in adolescence

- **Screening and diagnosis of ADHD and SUD**

Heavy substance use predicts worse treatment outcomes for both ADHD and SUD.

Early detection and treatment improves outcomes

High co-morbidity of ADHD+SUD

Screen everyone - all primary care and mental health patients for SUD and all SUD patients for ADHD

Diagnosis by trained professional using standardized structured diagnostic instruments and diagnostic procedures for each separate disorder

Summary of International Consensus Statement for the Screening, Diagnosis, and Treatment of Adolescents with Concurrent ADHD & Substance Use Disorder (2020)

Treat both ADHD and SUD in parallel.

Stabilise SUD first but don't delay ADHD treatment unnecessarily

Clinical judgement in individual cases is needed regarding which medication and whether to wait until abstinence or not.

Psychological treatment should include psychoeducation and motivational interviewing to enhance treatment engagement and retention and CBT for either SUD or both conditions

Consider family-based treatment

First-line pharmacotherapy of ADHD in adolescents with concurrent ADHD and SUD consists of long-acting psychostimulants (e.g., methylphenidate, lisdexamfetamine, dexamphetamine, and mixed amphetamine salts). As second-line pharmacological treatments atomoxetine, guanfacine XR or bupropion can be considered

Carefully titrate medication, monitoring effect and possible adverse effects.

Higher doses of psychostimulants may be required in patients with ADHD+SUD

Minimise risk of psychostimulant medication misuse or diversion, with careful clinical monitoring, therapeutic contract, long-acting instead of short-acting psychostimulants, limited dispensing

Monitor growth, weight, BP. Cardiac assessment if indicated

Healthy lifestyle - balanced diet, good nutrition, regular exercise, scheduled bed and waking hours is recommended

Complementary treatments - Insufficient research in adolescent ADHD+SUD populations to recommend Neurofeedback, dietary interventions, meditation/mindfulness-based therapies, physical exercise interventions or herbal medicine as primary treatments

The verdict has been delivered regarding the cost of untreated ADHD in Australia and in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD in the Justice System

The verdict has been delivered regarding the high prevalence of ADHD and substance use disorder (SUD)

The verdict has been delivered regarding how to treat Adolescents with ADHD+SUD

The verdict has been delivered regarding how to treat ADHD and comorbidities in prisons





Building better futures for children with ADHD

Consensus Statements

Consensus Statements

UKAP and associated organisations have regularly organised consensus meetings of experts and practitioners working with children, young people and adults with ADHD. Meeting attendees included experts across a range of mental health professions, including healthcare specialists (nursing; general practice; child, adolescent and adult psychiatry; clinical and forensic psychology; counselling), academic, educational and occupational specialists. The result is a comprehensive overview of ADHD within specific areas, providing recommendations for detection, assessment, treatment and multi-agency liaison. To obtain these publications, please click the following links:

[Click here for ADHD in the Prison Population \(published 2018\)](#)

[Click here for ADHD and Fetal Alcohol Spectrum Disorders \(published 2016\)](#)

[Click here for Transition of Patients with ADHD from Child to Adult Services \(published 2016\)](#)

[Click here for Occupational Issues for Adults with ADHD \(published 2013\)](#)

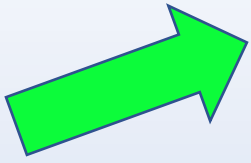
[Click here for ADHD and the Criminal Justice System \(published 2011\)](#)

ADHD - What is it?



[Find out more](#)

News Updates



The identification and management of ADHD offenders within the criminal justice system: a consensus statement from the UK Adult ADHD Network and criminal justice agencies

[Susan J Young](#) , [Marios Adamou](#), [Blanca Bolea](#), [Gisli Gudjonsson](#), [Ulrich Müller](#), [Mark Pitts](#), [Johannes Thome](#) & [Philip Asherson](#) *BMC Psychiatry* volume 11, Article number: 32 (2011)

The abuse potential for stimulants is however often overstated and usually by professionals who are not familiar with the effects of stimulants in the treatment of ADHD.

- the use of prescribed stimulants is not associated with an overall increase in drug abuse problems and may be associated with a reduction in illicit drug use
- There is therefore no indication that stimulants are addictive when prescribed for the treatment of ADHD.
- Overall the potential benefits of treatment, particularly in highly impaired individuals, appear to greatly outweigh the potential risks.
- Many prisons already run medication-based programmes for controlled drugs (e.g. methadone maintenance) and successfully adhere to protocols and policies that aim to reduce the chances of mismanagement
- Risk assessments should however be carried out in each individual case and consideration given to the particular drug formulations prescribed eg long-acting stimulants or non-stimulants.



Building better futures for children with ADHD

Consensus Statements

Consensus Statements

UKAP and associated organisations have regularly organised consensus meetings of experts and practitioners working with children, young people and adults with ADHD. Meeting attendees included experts across a range of mental health professions, including healthcare specialists (nursing; general practice; child, adolescent and adult psychiatry; clinical and forensic psychology; counselling), academic, educational and occupational specialists. The result is a comprehensive overview of ADHD within specific areas, providing recommendations for detection, assessment, treatment and multi-agency liaison. To obtain these publications, click on the following links:

[Click here for ADHD in the Prison Population \(published 2018\)](#)

[Click here for ADHD and Fetal Alcohol Spectrum Disorders \(published 2016\)](#)

[Click here for Transition of Patients with ADHD from Child to Adult Services \(published 2016\)](#)

[Click here for Occupational Issues for Adults with ADHD \(published 2013\)](#)

[Click here for ADHD and the Criminal Justice System \(published 2011\)](#)

ADHD - What is it?




[Find out more](#)

News Updates



Identification and treatment of offenders with attention-deficit/hyperactivity disorder in the prison population: a practical approach based upon expert consensus

[Susan Young](#) , [Gisli Gudjonsson](#), [Prathiba Chitsabesan](#), [Bill Colley](#), [Emad Farrag](#), [Andrew Forrester](#), [Jack Hollingdale](#), [Keira Kim](#), [Alexandra Lewis](#), [Sarah Maginn](#), [Peter Mason](#), [Sarah Ryan](#), [Jade Smith](#), [Emma Woodhouse](#) & [Philip Asherson](#)

- High risk of co-morbid mood disorders among youth and adult offenders with ADHD
- High risk of self-harm or suicide in the first weeks of prison reception
- Identify prisoners at risk of aggression, violence, self-harm, and suicide who might benefit from treating ADHD
- Identify prisoners with ADHD+SUD - detoxification treatment in prison before receiving treatment for ADHD.
- Adults with undiagnosed ADHD treated for other mental health disorders such as major depression, anxiety, bipolar, and/or personality disorders, have poor clinical and functional outcomes if ADHD goes untreated
- Treating ADHD improves ADHD symptom control, emotional lability, and overall functioning.
- Furthermore, outcome studies indicate reduced rates of transport accidents, criminality, and suicidal behaviour during periods of treatment for ADHD

Recommendations from Identification and treatment of offenders with attention-deficit/hyperactivity disorder in the prison population: a practical approach based upon expert consensus

Identification and Assessment

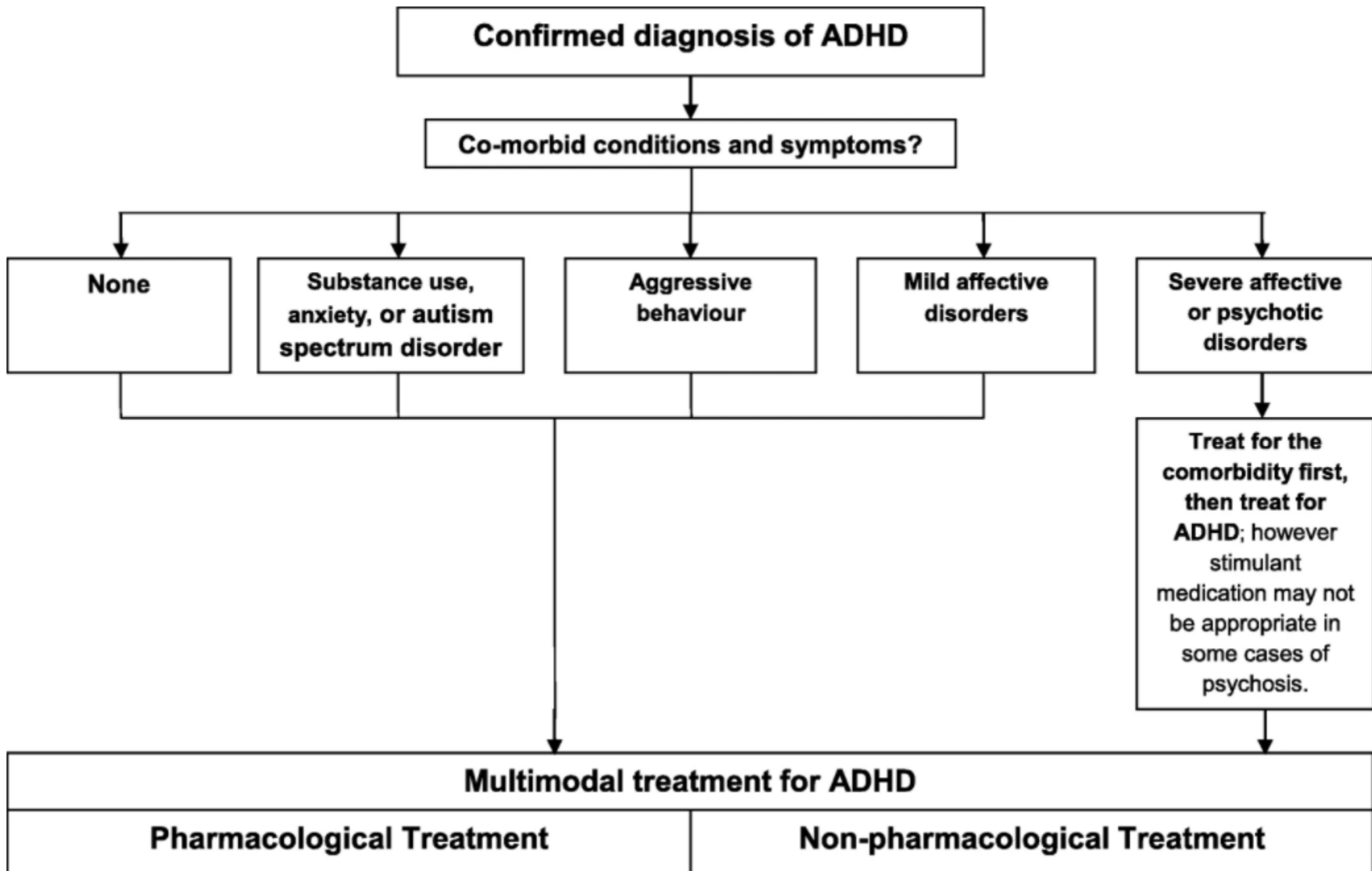
1. Prison staff training to develop awareness of ADHD symptoms and co-morbid conditions (including how these may differ by age and gender), treatments, expected outcomes and the potential impact of prison regime on the offender with ADHD (e.g. greater risk of suicide, impact of segregation). This should include recognition that many offender mental health issues are secondary to ADHD.
2. For youths, adoption of a suitable primary screen (e.g. CHAT) and a clinical diagnostic interview (e.g. ACE). If a rating scale is given (e.g. SNAP-IV, CBRS) this should be sensitive to both inattention and hyperactivity/impulsivity symptoms.
3. For adults, adoption of a suitable primary screen (e.g. B-BAARS) and a clinical diagnostic interview (e.g. ACE+, CAADID, DIVA-2). If a rating scale is given (e.g. BAARS) this should be sensitive to both inattention and hyperactivity/impulsivity symptoms.

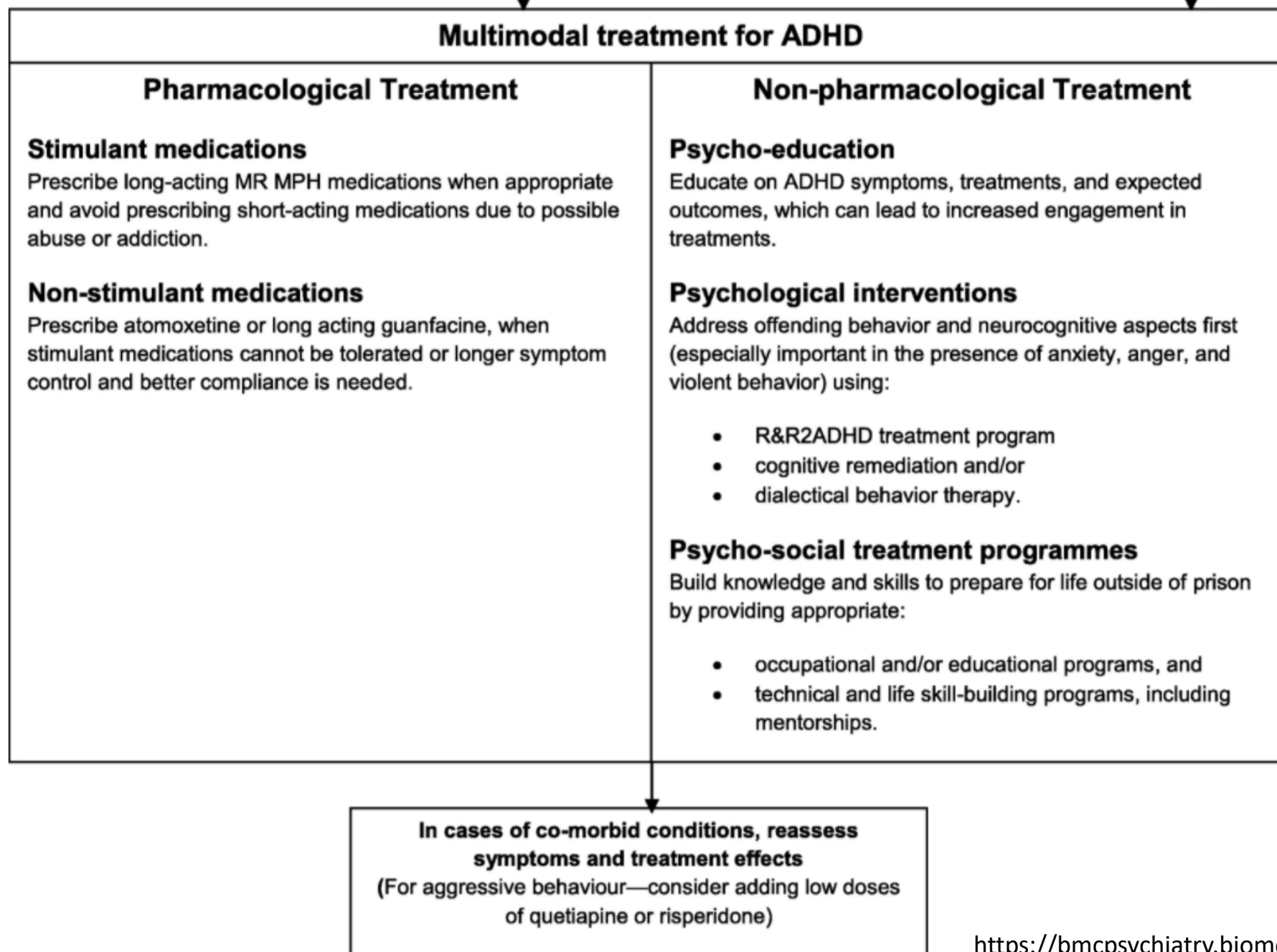
Interventions and Treatment

4. All treatments should include psychoeducation about ADHD, including symptoms, co-morbidity, pharmacological and non-pharmacological treatments, side-effects of treatment and expected outcomes.
5. Adoption of appropriate pharmacological and non-pharmacological treatments (see Fig. 1).
6. Adoption of appropriate educational and occupational programmes designed to increase engagement (see Fig. 1).
7. Educational and occupational programmes should be prioritised that advance vocational, creative, technical, and/or athletic skills.

Care Management and Multiagency Liaison

8. There should be close liaison between education and mental health services within the criminal justice system
9. A care plan coordinator should be assigned to the offender while in prison.
10. A comprehensive care plan should be established, including a medication management plan, for the offender while in prison (see Additional file 1, online supplementary material).
11. The care plan should also plan to prepare the offender with ADHD for release from prison (e.g. effecting a seamless transition to ensure continuity of care and uninterrupted treatment with ADHD medication; arranging appropriate links with supportive services and agencies).
12. A critical time intervention approach should be established for a designated person to support the offender through the release process, support implementation of the care plan and ensure engagement in healthcare.





TAKE HOME MESSAGES

There are great opportunities to significantly impact many lives by treating Adolescents in the Justice System for their ADHD+SUD+

Screen “Everyone with ADHD for SUD” & “Everyone with SUD for ADHD”

Comprehensive Management Plan for ADHD+SUD+

Don't re-invent the wheel – The knowledge is available

Thank You