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## ADHD and substance use ...

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# Acknowledgement of Country



I wish to acknowledge the original owners of the land on which we gather. I pay my respects to their Elders and the members of the community I call my friends.

I celebrate the oldest continuing culture in the world and acknowledge the memory of their ancestors.



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# Acknowledgement of people with lived/living experience

- I recognise the experience and wisdom of people with ADHD
- I celebrate their strengths
- I acknowledge the important contribution that they make to health and community services.



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# What I am covering

- Relationship between ADHD & SUD
- Prevalence of ADHD in SUD treatment
- Barriers to treatment
  - SPAM
  - Risk of diversion
- Reason to treat with enthusiasm



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# Royal Commission into Mental Health in Victoria

## Recommendation 36:

A new statewide service for people living with mental illness and substance use or addiction



### The Royal Commission recommends that the Victorian Government:

1. establish a new statewide specialist service, built on the foundations established by the Victorian Dual Diagnosis Initiative, to:
  - a. undertake dedicated research into mental illness and substance use or addiction;
  - b. support education and training initiatives for a broad range of mental health and alcohol and other drug practitioners and clinicians;
  - c. provide primary consultation to people living with mental illness and substance use or addiction who have complex support needs; and
  - d. provide secondary consultation to mental health and wellbeing and alcohol and other drug practitioners and clinicians across both sectors.



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# ADHD and drug use



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# People use drugs for a reason that makes sense to them



## To feel good

To have novel:  
feelings  
sensations  
experiences  
AND  
to share them



## To feel better

To lessen:  
anxiety  
worries  
fears  
depression  
hopelessness



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When I grow  
up I want  
to be...



- Stigma
- Prejudice
- Anger
- Misunderstanding

on



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# Laura's story

- Laura is now 42
- Grew up in a little country town
- Went to a small primary school
- Described herself as
  - Chatterbox                      - 'Laura stop talking'
  - Daydreamer                    - 'Laura pay attention'



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# Laura needs help!

- Several episodes of psychosis
- Diagnosed with
  - Bipolar Disorder – several admissions
  - Drug induced psychosis
  - ? Schizophrenia
  - Borderline Personality Disorder
- Failed relationships
- Neurodivergent children are challenging



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# The busy brain



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# Why are ADHD & SUD related?



- Self-medication

Wilens, T. E. and S. Fusillo (2007). "When ADHD and substance use disorders intersect: Relationship and treatment implications." Current Psychiatry Reports **9**(5): 408-414.

- Shared genetic links

Biederman, J., et al. (2008). "Stimulant Therapy and Risk for Subsequent Substance Use Disorders in Male Adults With ADHD: A Naturalistic Controlled 10-Year Follow-Up Study." American Journal of Psychiatry **165**(5): 597-603.

- ADHD

- Inattentive predicts earlier use of drugs
- Conduct disorder -> more problems

Molina, B. S. and W. E. Pelham Jr (2003). "Childhood predictors of adolescent substance use in a longitudinal study of children with ADHD." Journal of Abnormal Psychology **112**(3): 497.



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# Twins and siblings

- Twin data

- More severe ADHD -> alcohol & marijuana earlier
- Hyperactive/impulsive -> heavy drinking ♀
- Inattentive -> marijuana use

Elkins, I. J., Saunders, G. R., Malone, S. M., Keyes, M. A., McGue, M., & Iacono, W. G. (2018). Associations between childhood ADHD, gender, and adolescent alcohol and marijuana involvement: A causally informative design. *Drug and alcohol dependence*, 184, 33-41.

- Sibling data

- Earlier age of substance use
- More mental illness
- More severe addiction

- Arias, A. J., Gelernter, J., Chan, G., Weiss, R. D., Brady, K. T., Farrer, L., & Kranzler, H. R. (2008). Correlates of co-occurring ADHD in drug-dependent subjects: prevalence and features of substance dependence and psychiatric disorders. *Addictive behaviors*, 33(9), 1199-1207.



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# Prevalence

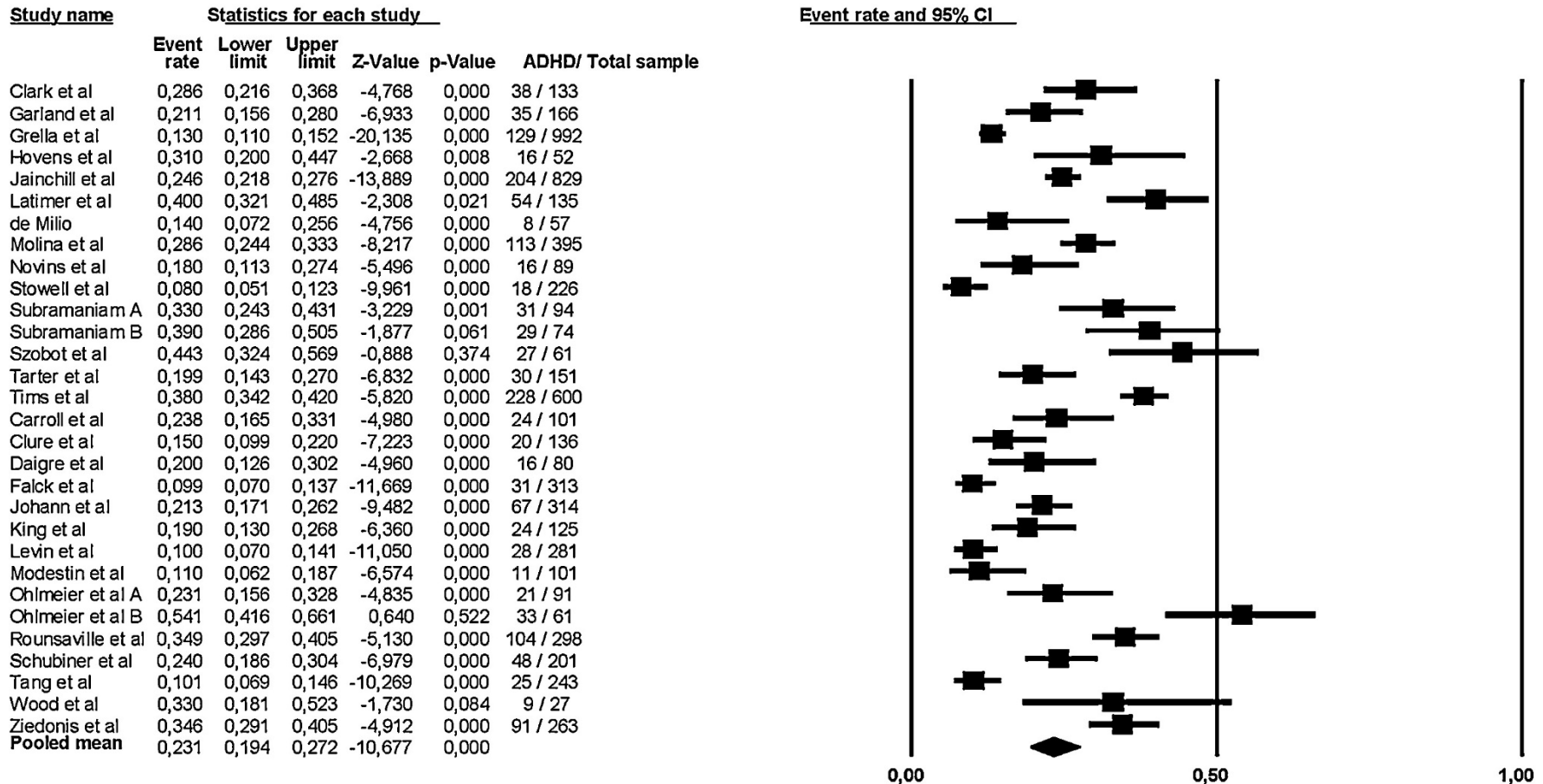


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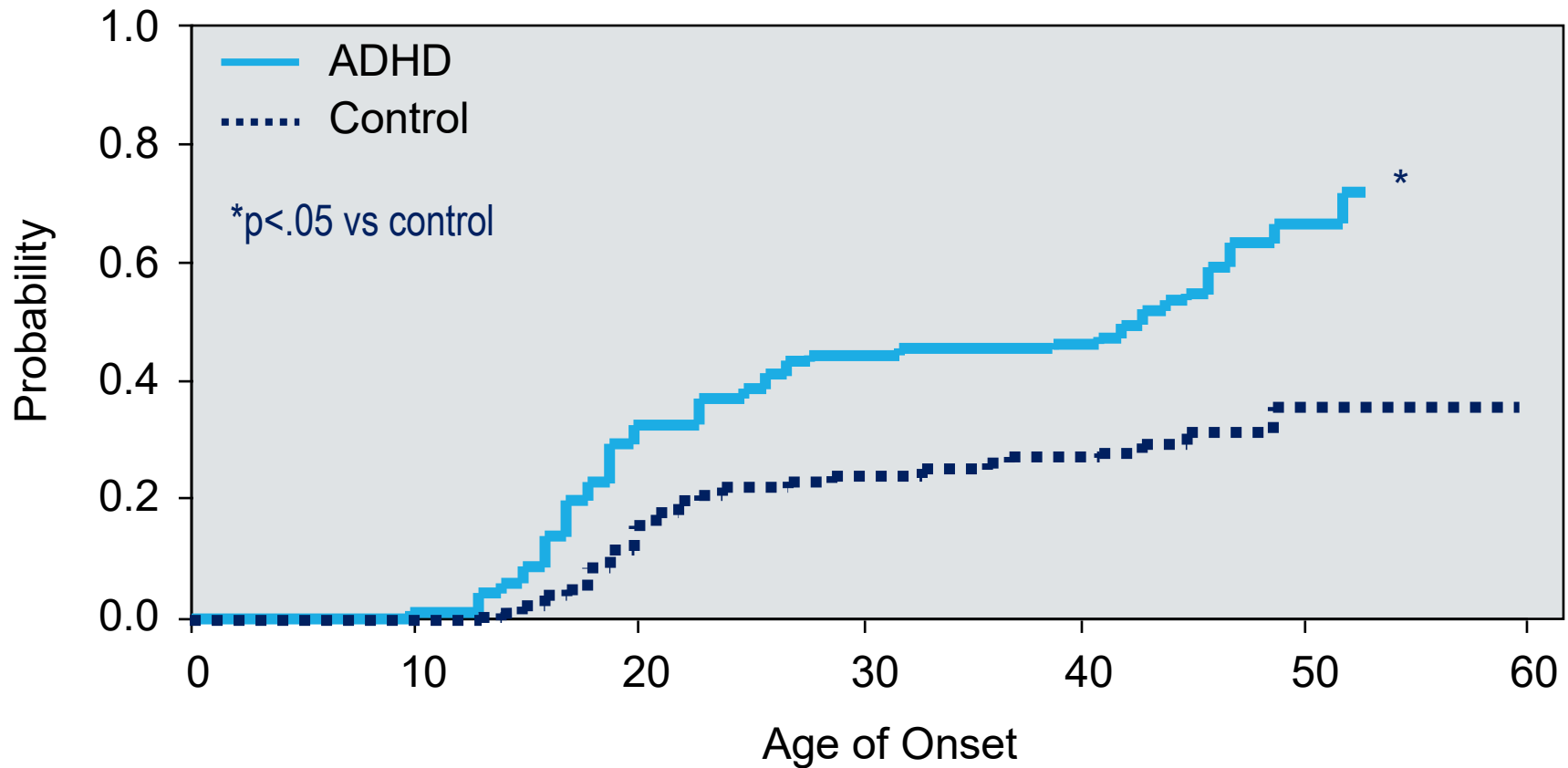
# Prevalence 20 to 30%



van Emmerik-van Oortmerssen, K., van de Glind, G., van den Brink, W., Smit, F., Crunelle, C. L., Swets, M., & Schoevers, R. A. (2012). Prevalence of attention-deficit hyperactivity disorder in substance use disorder patients: a meta-analysis and meta-regression analysis. *Drug and alcohol dependence*, 122(1-2), 11-19.

# Onset of Substance Abuse in ADHD Adults

(Retrospectively Derived)

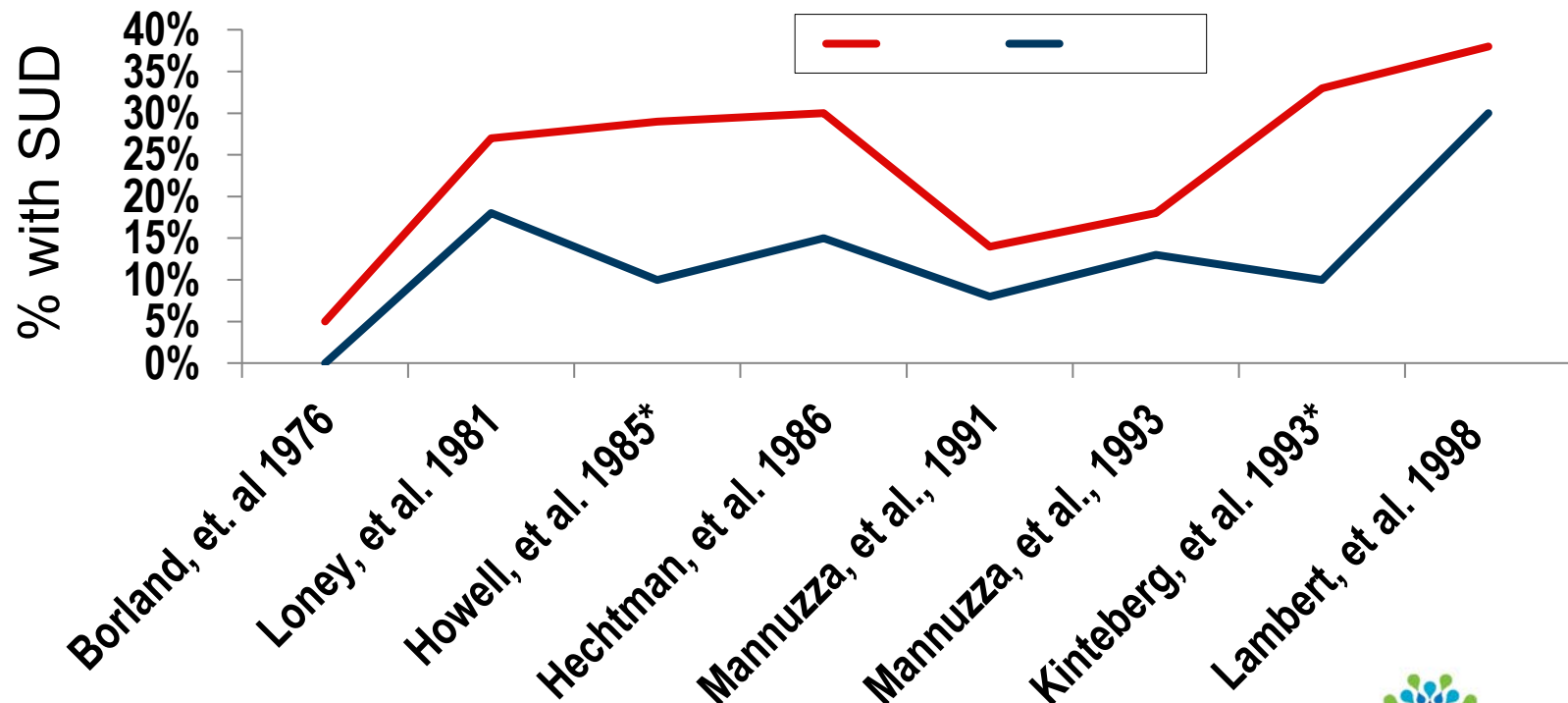


# Lifetime Rates of SUD

in Controlled Longitudinal Studies of ADHD Adults

Mean age range at follow-up: 18-26 years

Total ADHD N=845, total Control N=1085



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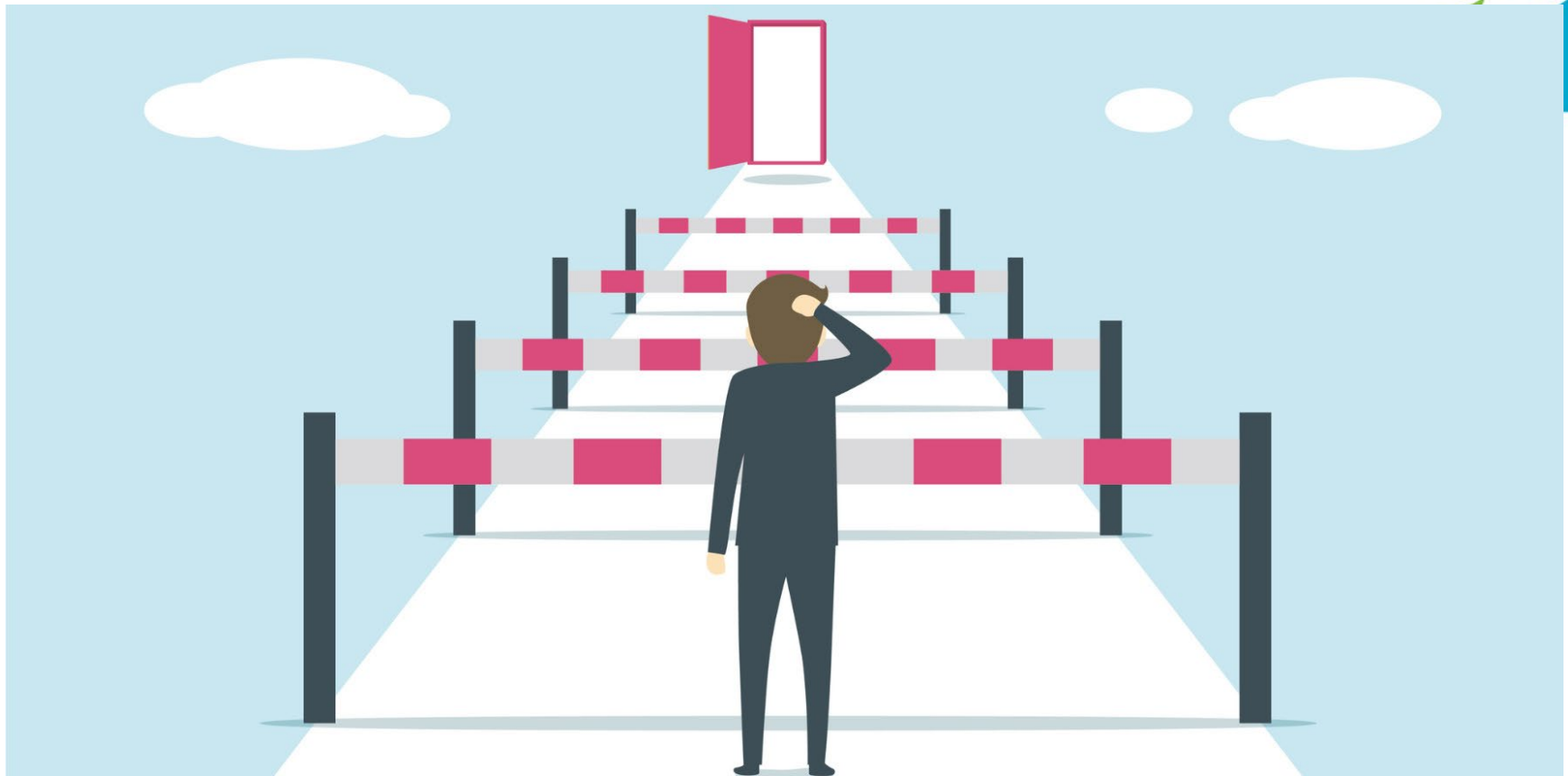
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# Barriers to care



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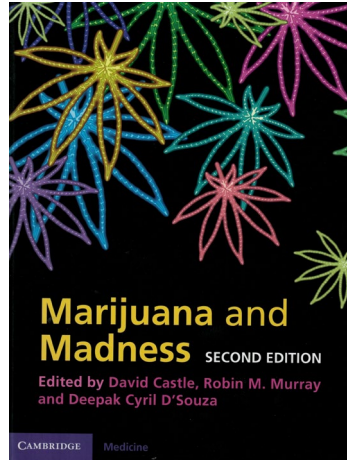


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# Laura is rejected



- 'I don't (can't) treat people who use drugs'
- Come back after detox and rehab



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Not in my practice!

We don't have people like that here!

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# Substance use & ADHD

## *Myths*

- Adults don't have ADHD
- Women don't have ADHD
- They will abuse stimulant medication
- We “don't believe in ADHD”
- You can't treat ADHD in drug users
- You can't treat ADHD in people with mental illness



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- **Stigma** (against the drug use)
- **Prejudice** (against drug users)
- **Anger** (moral judgement)
- **Misunderstanding** (about what to do)

SPAM leads to widely-held inaccurate beliefs, as compared to **research-generated facts**)



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# Laura has ADHD

- Enters residential rehabilitation
- Commences treatment as part of her recovery
  - Dexamfetamine/Ritalin
  - Mood stabliser
- ‘Wow – this is how I am meant to feel!’



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# Diversion





# What's popular?



Class	Drugs
Benzodiazepines	all
Opioids	all
Stimulants	dexamphetamine pseudoephedrine methylphenidate
Antipsychotics	olanzapine quetiapine
Anaesthetic drugs	ketamine propofol
GABA agonists	gabapentin pregabalin



**Figure 1. Unnecessary medicines removed from patients' homes**

Vuong, T., & Marriott, J. L. (2006). Unnecessary medicines stored in homes of patients at risk of medication misadventure. *Journal of Pharmacy practice and research*, 36(1), 16-20.

Wood, D. (2015). Drug diversion. *Australian prescriber*, 38(5), 164.



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# Risk of diversion (sharing)

- Stimulants are valued for
  - Studying
  - Recreation
- Adolescents
  - 23% asked for medication
  - 16% to 29% had misused or diverted at least once
  - (This means > 70% had never diverted)
- But 36% of college students diverted a medicine

Clemow, D. B., & Walker, D. J. (2014). The potential for misuse and abuse of medications in ADHD: a review. *Postgraduate medicine*, 126(5), 64-81.

Wilens, T. E., Adler, L. A., Adams, J., Sgambati, S., Rotrosen, J., Sawtelle, R., ... & Fusillo, S. (2008). Misuse and diversion of stimulants prescribed for ADHD: a systematic review of the literature. *Journal of the American Academy of Child & Adolescent Psychiatry*, 47(1), 21-31.

Garnier, L. M., Arria, A. M., Caldeira, K. M., Vincent, K. B., Kevin, E. O., & Wish, E. D. (2010). Sharing and selling of prescription medications in a college student sample. *The Journal of clinical psychiatry*, 71(3), 19507.

# Diversion and Misuse of Medications in ADHD

- All cases receiving immediate-release stimulants
  - Methylphenidate
  - Dexamphetamine
- No evidence of diversion or misuse of
  - Extended-release stimulants (e.g. lisdexamfetamine, long-acting methylphenidate)
  - Nonstimulants (atomoxetine, clonidine, guanfacine)



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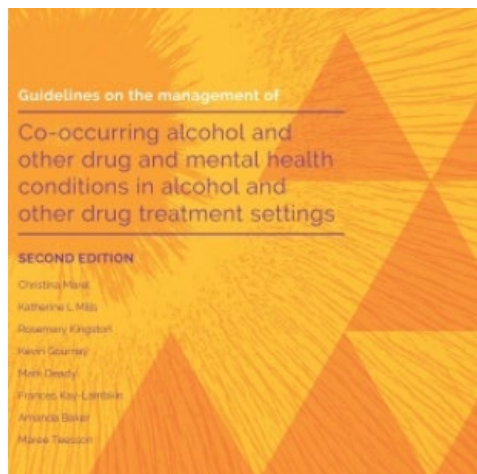


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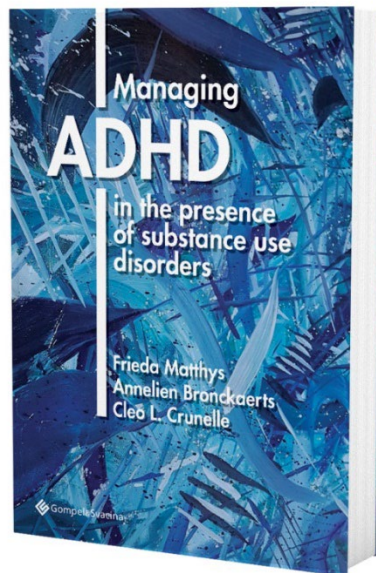
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# Why bother?

- We have guidelines



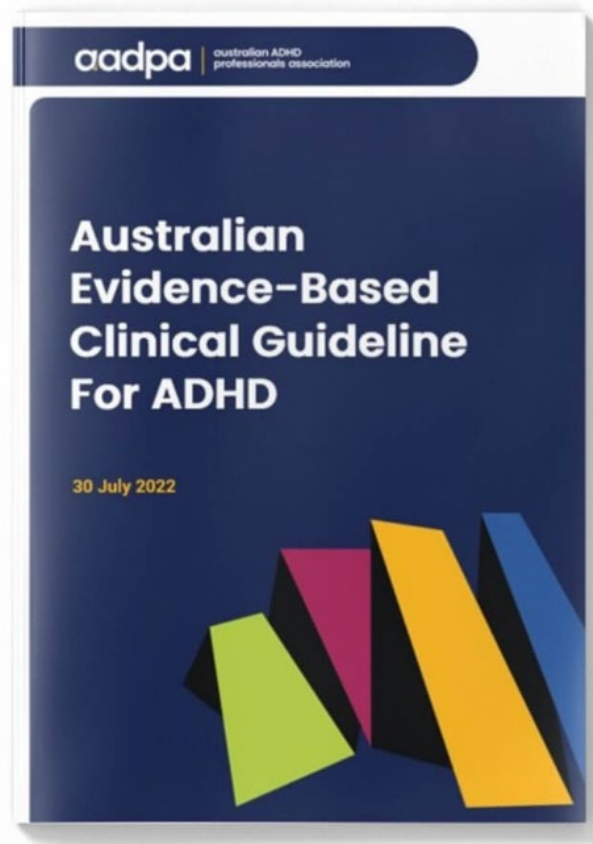
NDARC Guidelines,  
Australia, 2016



ICASA  
2018



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Australian Guidelines  
2022



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# Why treat ADHD in drug users?



- *ADHD increases the risk of going off the rails in life ... but the downward life spiral can be arrested by the right treatment.*
- *The drugs were just something I needed to make me feel normal. It was only when I didn't do them that I felt crazy.*



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# Because it works!



- ‘I haven’t used ice since I started treatment ‘
- I no longer crave drugs ...’
- I didn’t think I would ever study!
- I am working full time.



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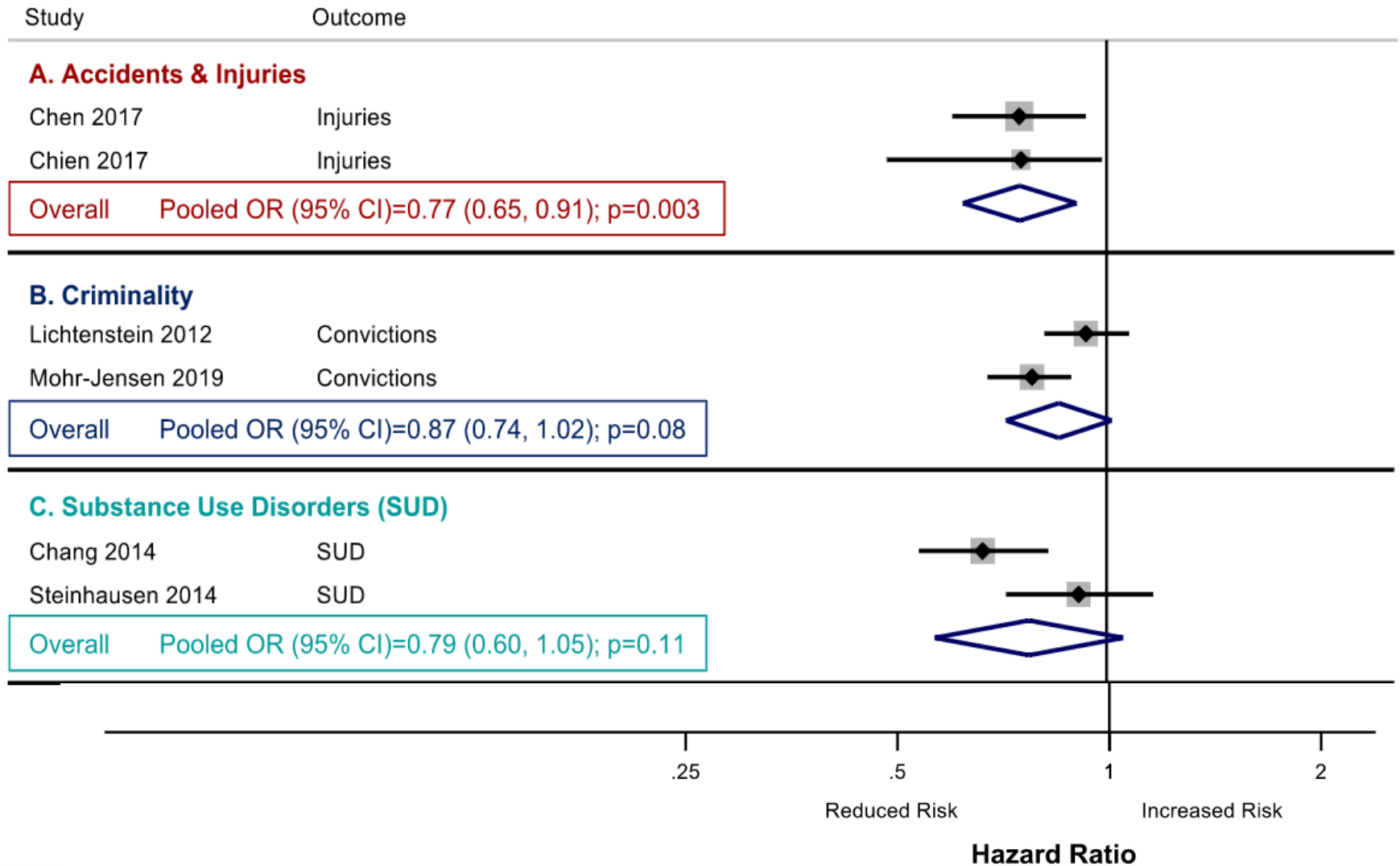
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Boland, H., DiSalvo, M., Fried, R., Woodworth, K. Y., Wilens, T., Faraone, S. V., & Biederman, J. (2020). A literature review and meta-analysis on the effects of ADHD medications on functional outcomes. *Journal of psychiatric research*, 123, 21-30.

# So what about Laura?

- Immediately after starting treatment
  - Stopped using illicit drugs
  - Relationships improved
  - Watched her first movie and read her first book!
- Laura is now a mature age student
  - Free of substance misuse
  - Working full-time



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# So why wait?

- Waiting for abstinence is guaranteeing failure
  - Loss of confidence
  - Loss of opportunity
- Treatment is possible
  - The risks are low and exaggerated
  - The rewards are HUGE



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