



Welcome to the **Positive Choices Webinar Series**

positivechoices.org.au



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@positivechoices1



Australian Government
Department of Health
and Aged Care



THE UNIVERSITY OF
SYDNEY
—
Matilda Centre



Acknowledgement of country

I'd like to begin by acknowledging the Traditional Custodians of Country throughout Australia and their connections to land, water and community. I am currently on the land of the Gadigal people of the Eora Nation and pay my respects to Elders, past and present. I further acknowledge the Traditional Owners of the land on which you are and pay my respects to their Elders, past and present.

I would also like to acknowledge any Aboriginal and Torres Strait Islander people joining us for the webinar today.



Housekeeping

1 Listen only mode.

2 This webinar is being recorded and will be made available on the Positive Choices website.

3 We will have a Q&A session at the end of the webinar. Please add questions to the Q&A box available.



What is Positive Choices?

positivechoices.org.au



Teachers & Schools

Evidence-based teaching programs and activities, webinars for teachers, and resources for your students



Parents & Families

Parenting advice and information to help you talk to your children about drugs and alcohol



Students

Facts, advice and interactive tools to help you find out information about drugs and alcohol and make positive choices



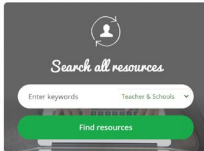
Culturally & Linguistically Diverse Peoples

Evidence based drug education resources for individuals from culturally and linguistically diverse communities



Aboriginal & Torres Strait Islander Peoples

A collection of culturally appropriate resources based on research and consultation with people from Aboriginal and Torres Strait Islander communities



- Central access point for trustworthy, up-to-date drug and alcohol information and educational resources.
- Developed by the Matilda Centre in consultation with teachers, parents and students. Funded by Australian Government Department of Health and Aged Care.
- Learning resources, factsheets, videos, webinars and games to engage young people with drug education.
- Access to classroom-based drug prevention programs that are proven to reduced drug-related harms.



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Peer influences on substance use and mental health during adolescence

Dr Louise Birrell, Postdoctoral Research Fellow at the Matilda Centre, the University of Sydney

Dr Jack Andrews, Postdoctoral Research Fellow at the Matilda Centre, the University of Sydney, and the University of New South Wales

31st May 2023

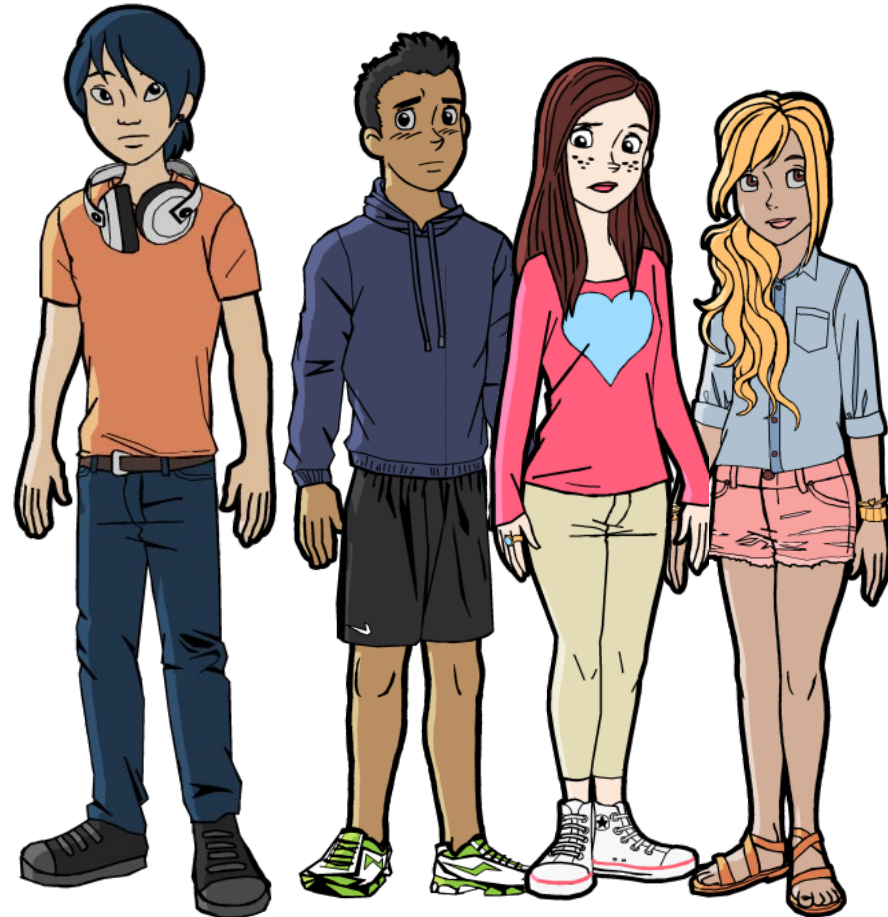
Peer influence on substance use and mental health during adolescence

Presented by

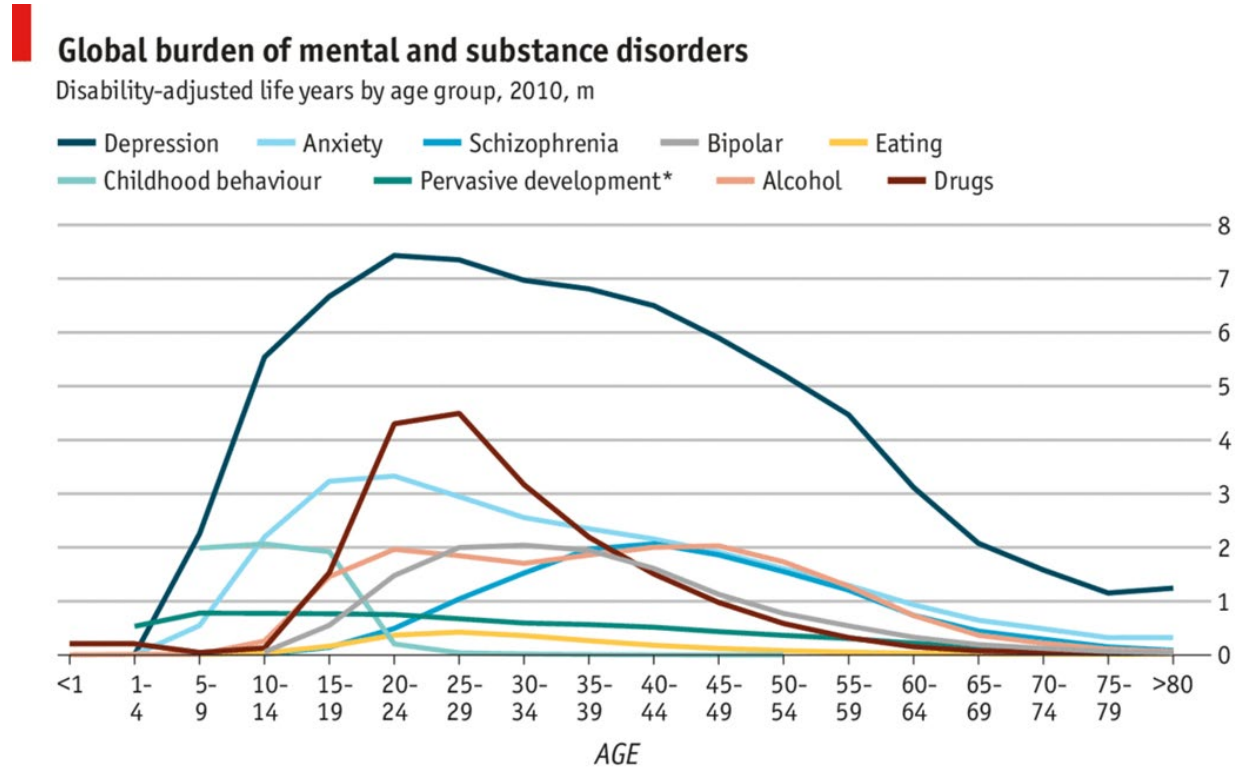
Dr Louise Birrell

Dr Jack Andrews

Faculty of Medicine & Health, The Matilda Centre for Research in Mental Health and Substance Use



The burden falls heavily on youth



Source: H. A. Whiteford et al. "Global burden of disease attributable to mental and substance use disorder", the *Lancet*, August 2013

*Including autism and Asperger's syndrome

Economist.com/graphicdetail

How many young people?

In any year **1 in 7** adolescents (12-17 years) will meet criteria for a **mental health disorder**



1 in 5 report **high to very high** psychological distress in past 30 days



Source: 2014 Young Minds Matter Survey

Peer Pressure



Vaping at school



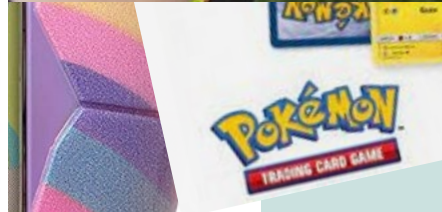
2022-10-26

Always in the bathroom too
#lodeddiperworldtour



maxcarusoo

▶ 1.7M



What is adolescence..?

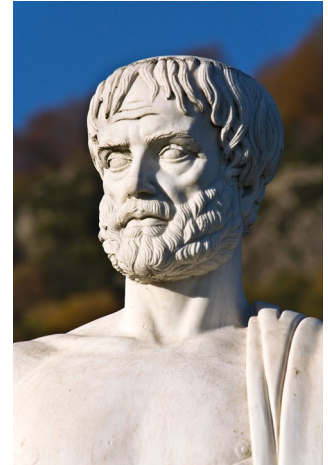
Adolescence

- Multiple definitions
 - One: Adolescence begins at puberty and ends when an individual gains a stable role in society
 - Two: Recent Lancet paper redefined adolescence as 10-24
 - Common agreement that it is a unique period of biological, psychological and social development.

Adolescence

“passionate, irascible, and apt to be carried away by their impulses [...] **the age when people are most devoted to their friends.**”

Aristotle (350 BCE)



Adolescence

– Letter to the Guardian, 2012

There's nothing like teenage diaries for putting momentous historical events in perspective. This is my entry for 20 July 1969.

I went to arts centre (by myself!) in yellow cords and blouse. Ian was there but he didn't speak to me. Got rhyme put in my handbag from someone who's apparently got a crush on me. It's Nicholas I think. UGH.

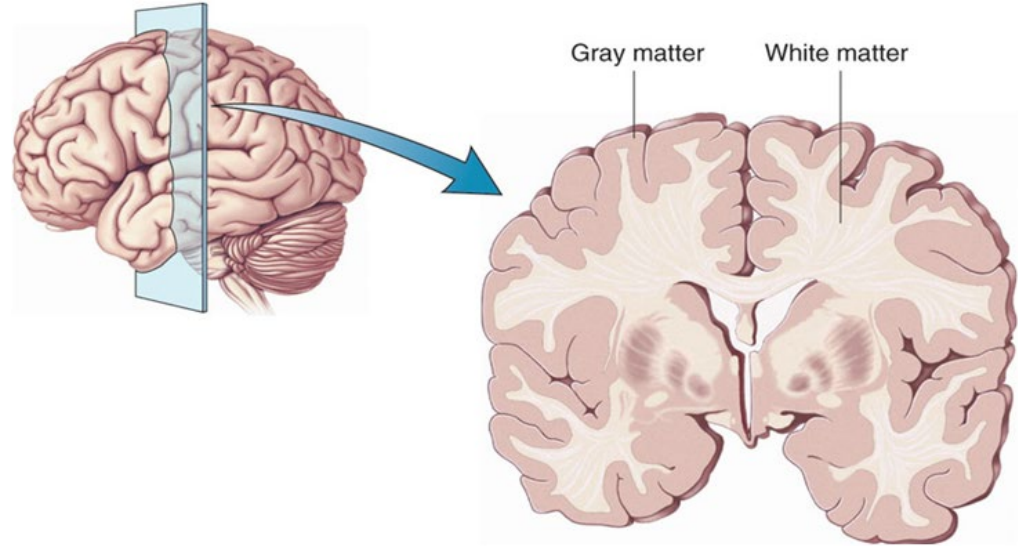
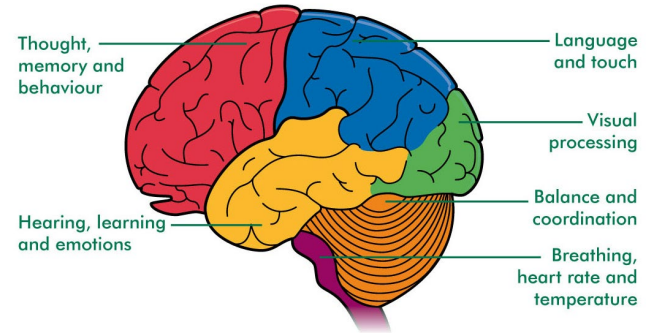
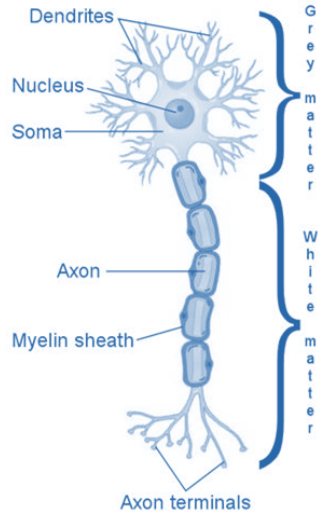
– Adolescence is a period of 'social re-orientation'

Social-Reorientation

- Adolescents begin to spend more time with their friends than their parents, compared to children
- Cross species evidence

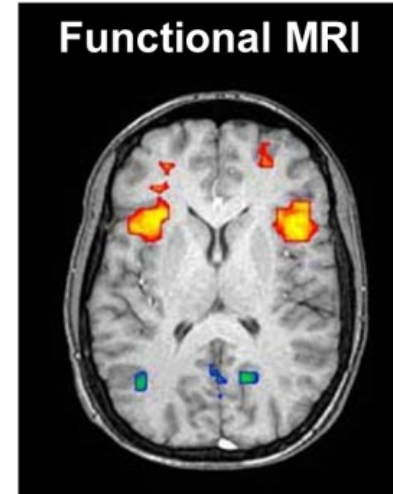
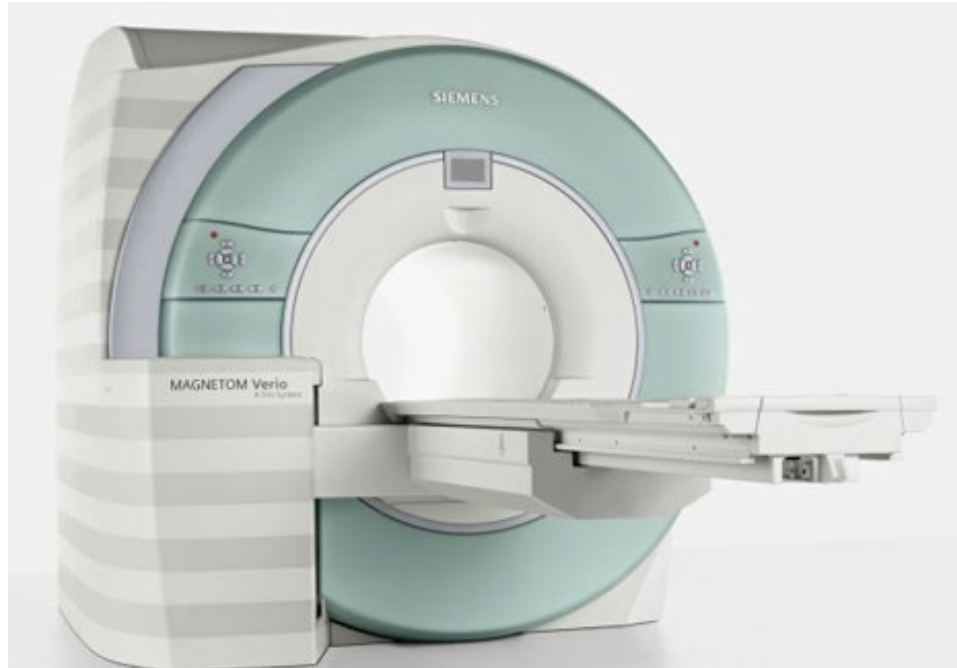


The adolescent brain

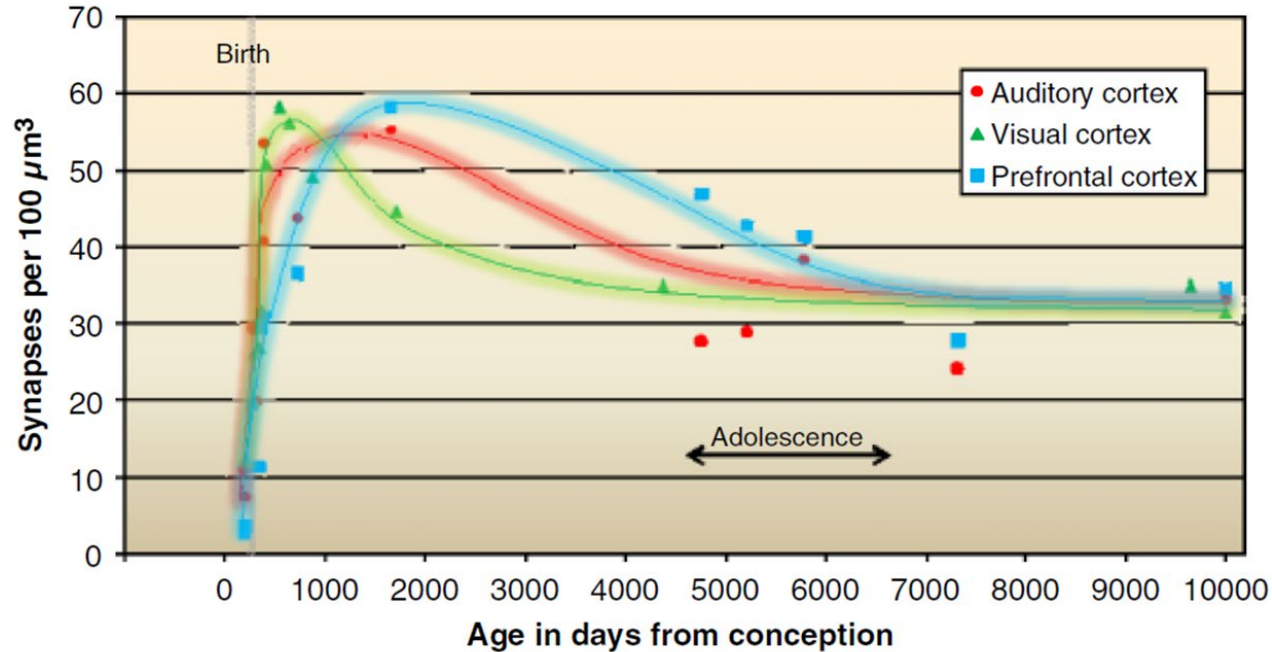
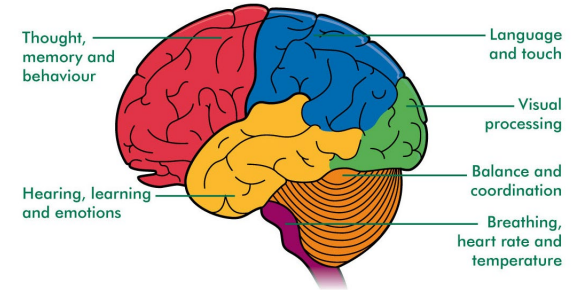


- ~ 100 billion neurons
- ~ 1 million billion connections

The adolescent brain

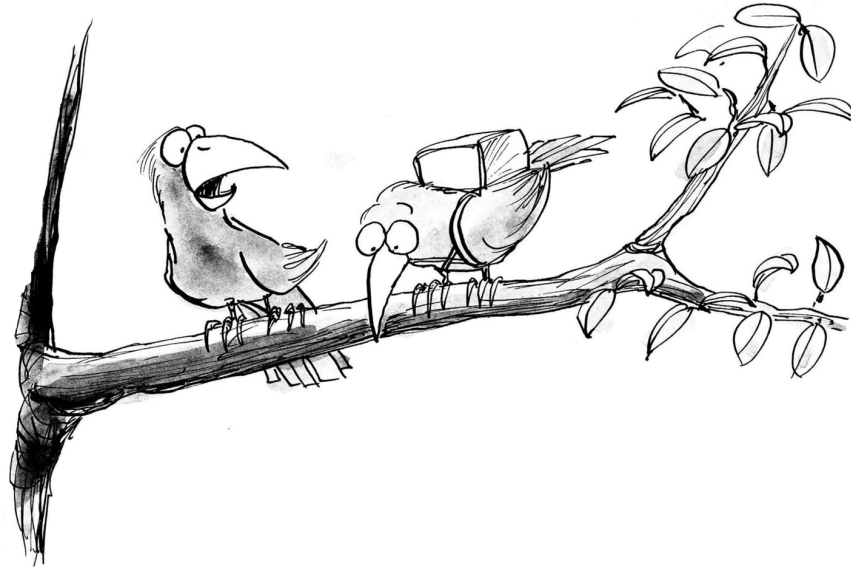


The adolescent brain



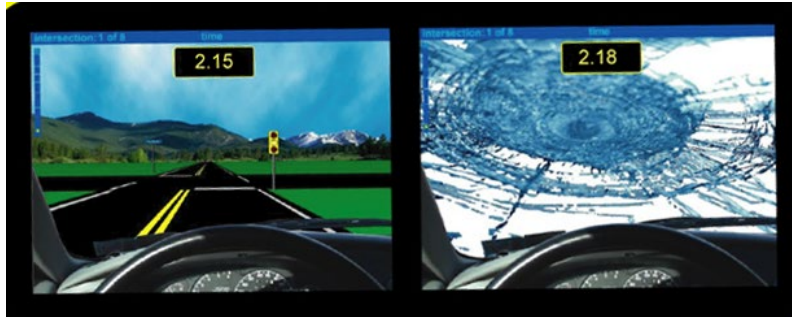
Peer influence and the adolescent brain

Peer influence on risk taking



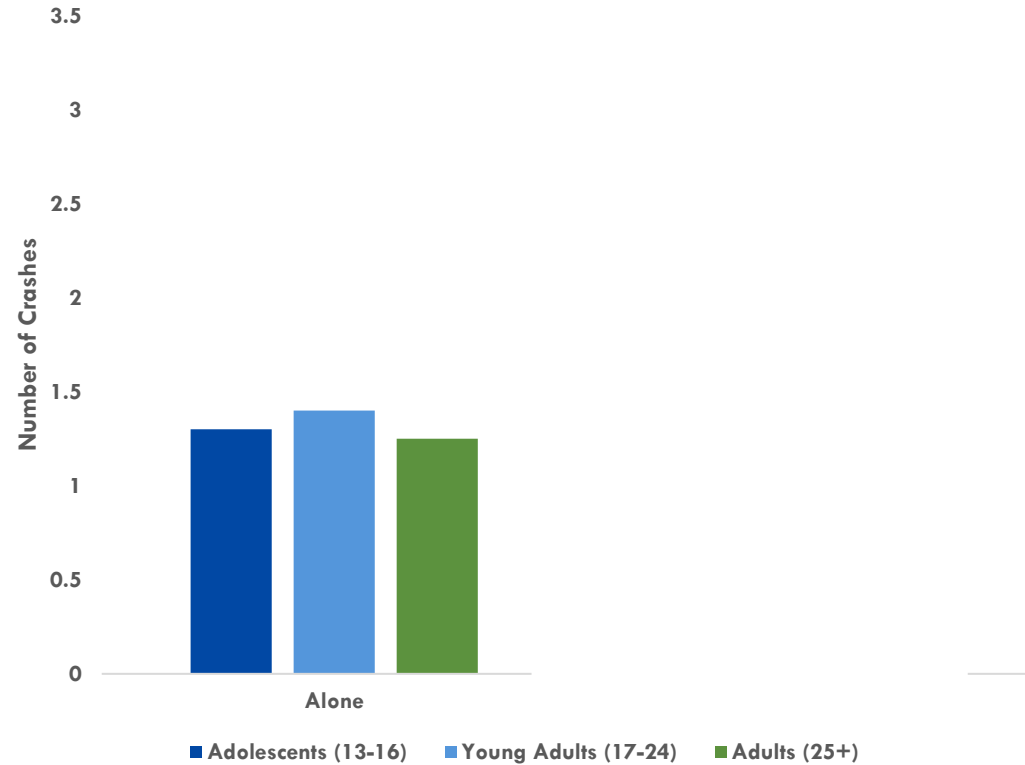
“Let’s try it without the parachute.”

Peer influence on risk taking



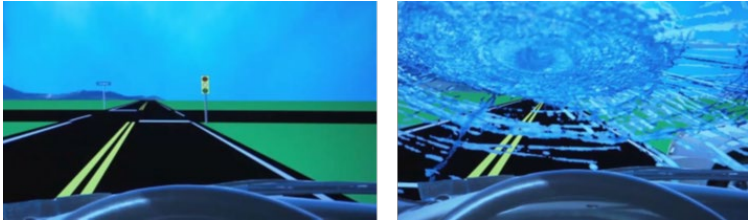
Three groups: adolescents (13-16y); young adults (17-24); adults (25-40)

Two conditions: playing alone or being watched by two friends

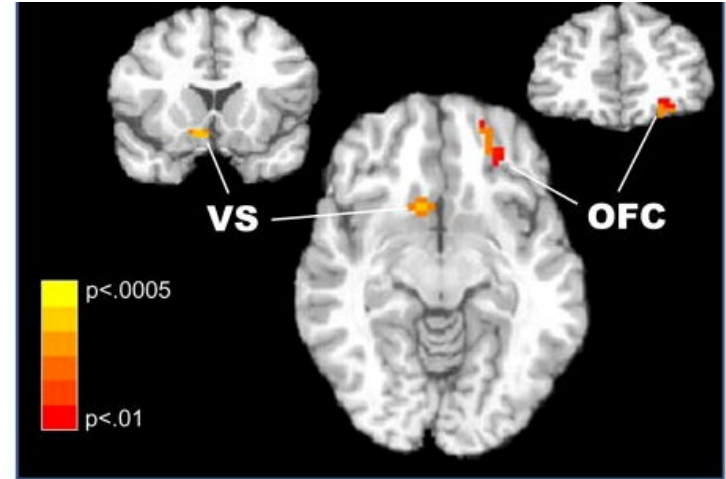
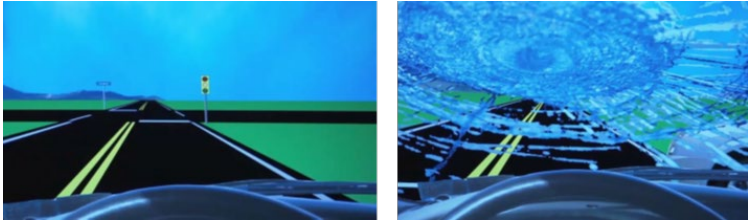


Gardner & Steinberg (2005)

Peer influence on risk taking

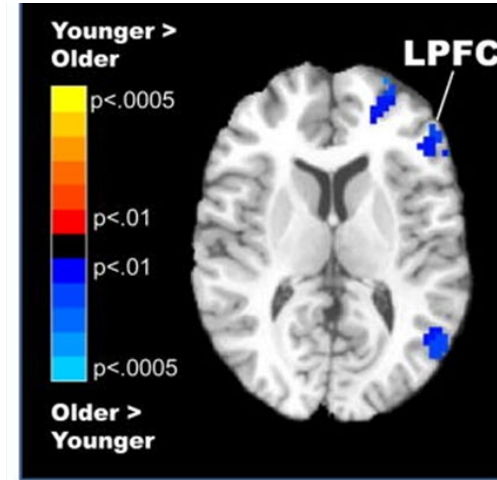
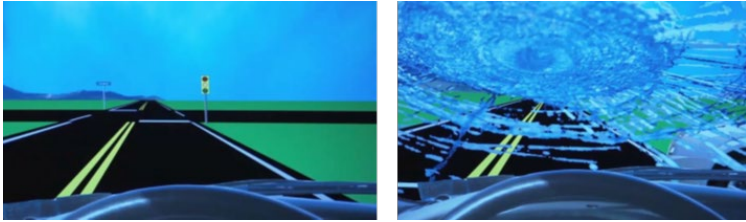


Peer influence in the brain



Adolescents had significantly greater activity in reward related brain regions when being watched than when playing alone.

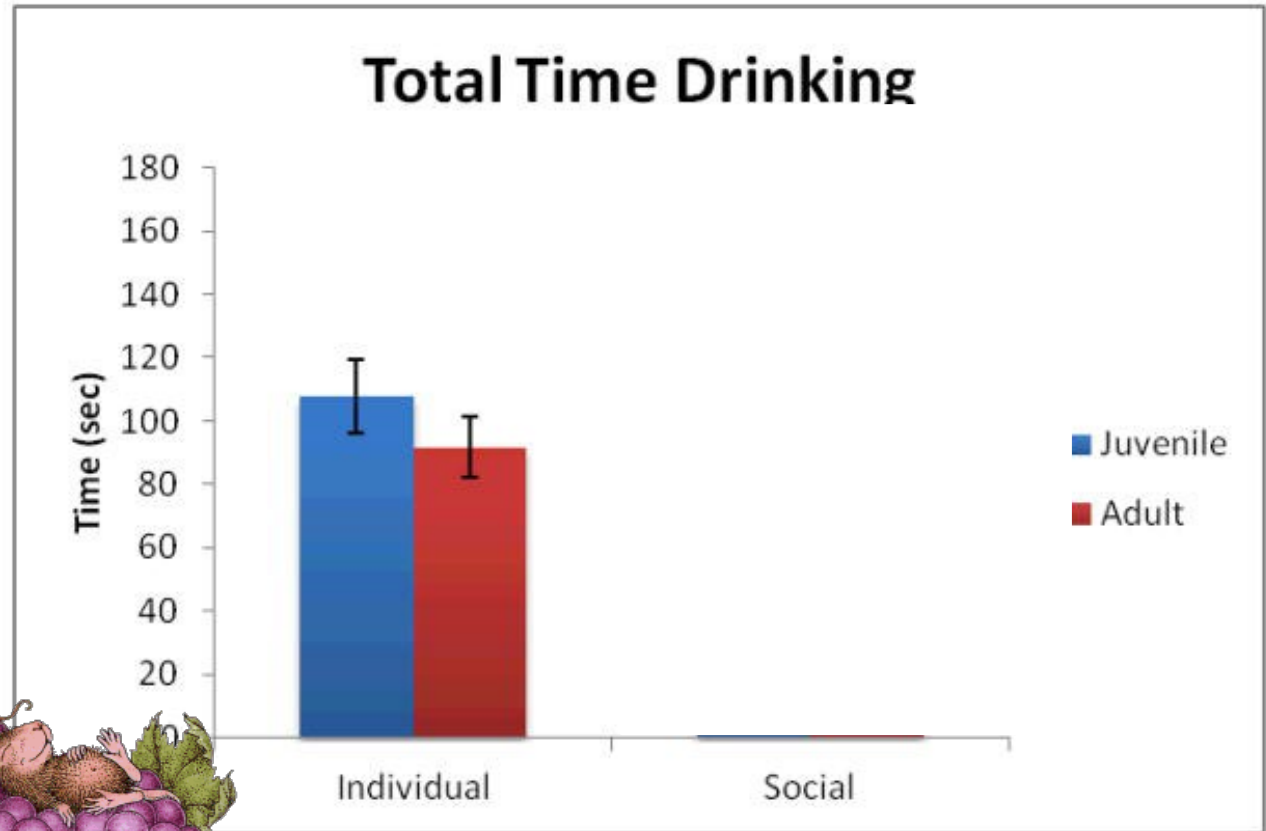
Peer influence in the brain



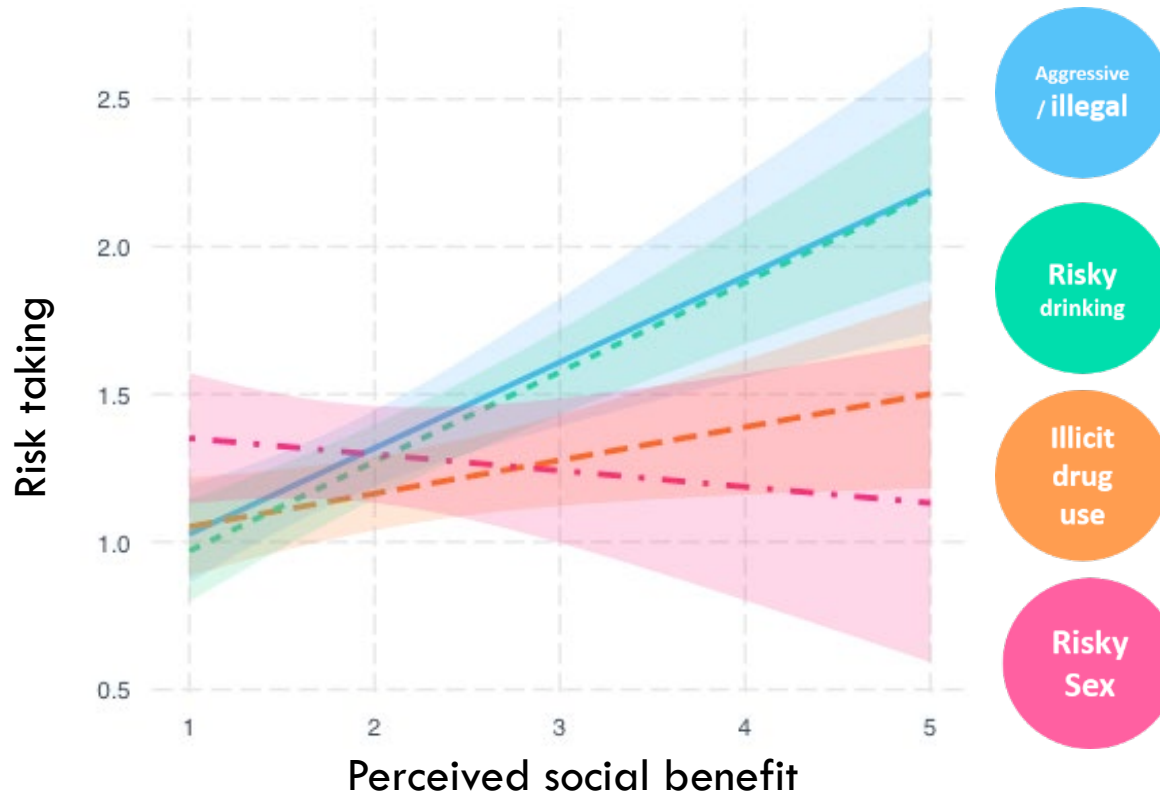
Adults had greater activity in the LPFC, which has been associated with strategic decision-making.

Peer influence on mental health and substance use

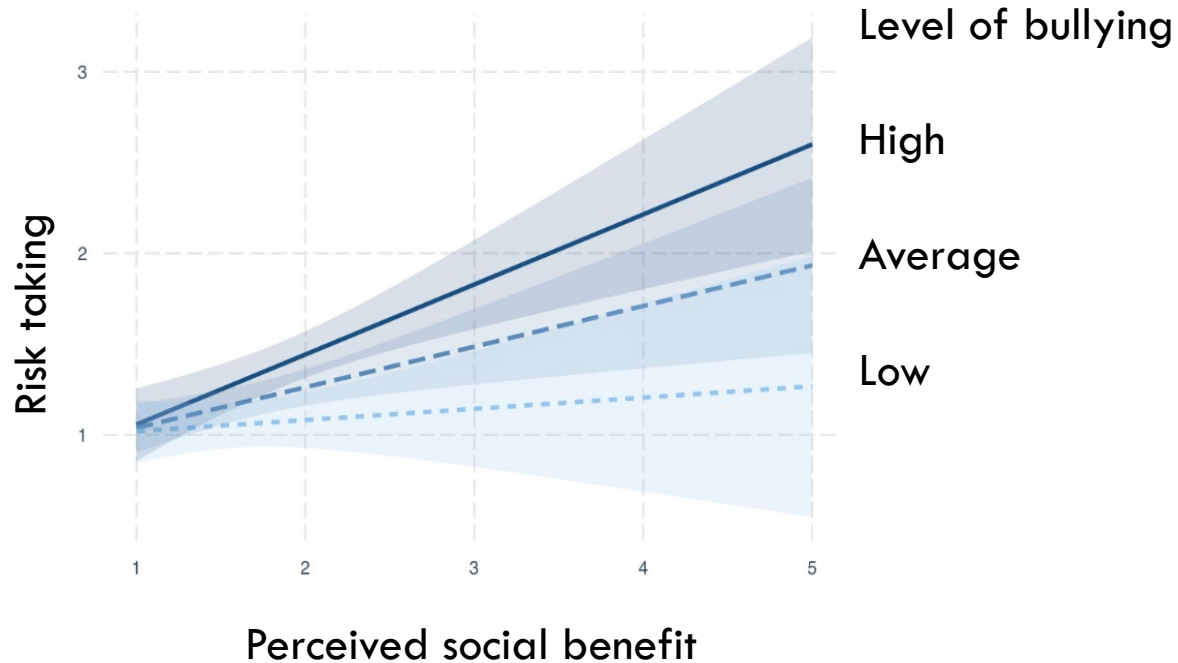
Substance use in adolescence is social



Substance use in adolescence is social



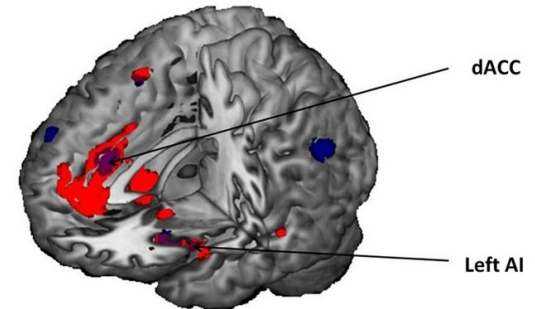
Substance use in adolescence is social



Adolescents want to avoid social risks/rejection



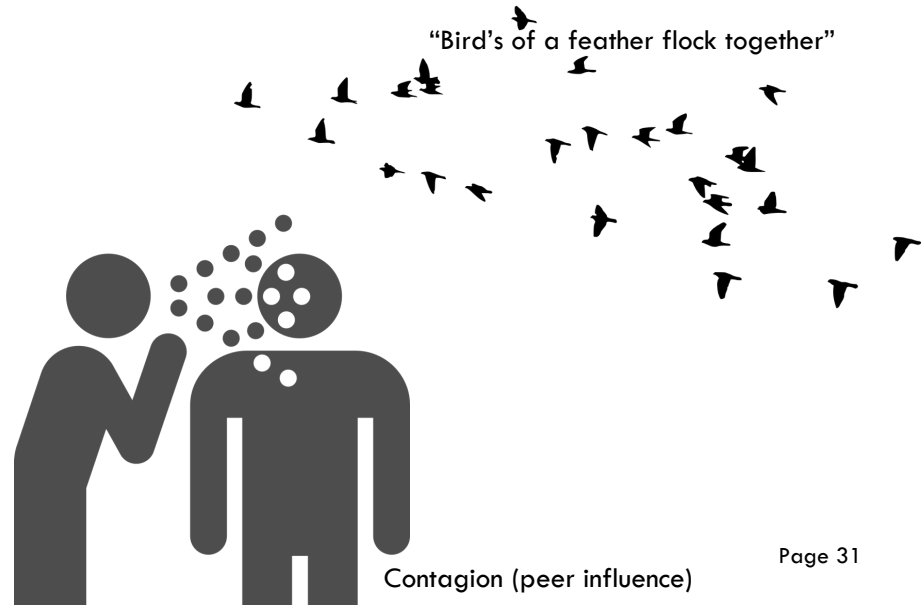
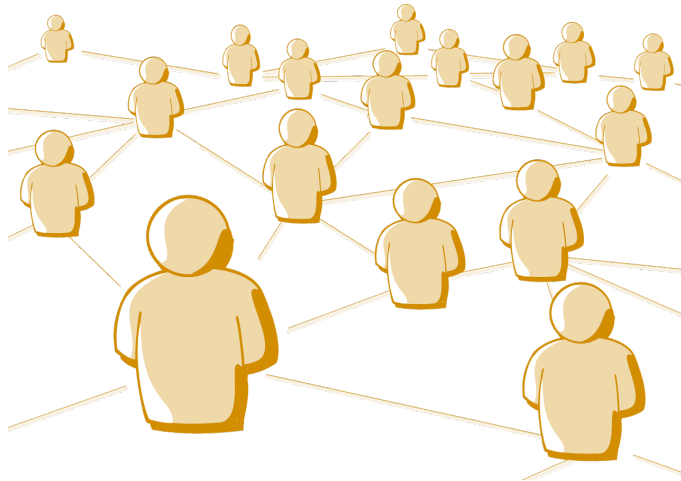
- Social risks: Decisions or actions that may lead to rejection
- Social rejection is felt more strongly among adolescents – more strongly associated with depression
- Engage in behaviours that will increase their belonging
- Social norms



Andrews et al. (2020) *Brain Sciences*
Tomova, Andrews, Blakemore (2021) *Dev Review*
Dalgelish et al. (2017) *Sci Reports*

Social contagion

- We can model peer influence ways not too dissimilar to the way we model disease transmission
- In this way we can model how mental health symptoms or substance use spreads in social networks



Social contagion and substance use

- Evidence for selection (select friends who drink similar amounts)
- Evidence for peer influence (adolescents adjust their drinking behaviour to match their friends' behaviour).



Ivaniushina & Tiktova (2021) Plos One



Barnett et al (2021) Addict Behaviour

Social contagion and mental health



Bloch and Burnett–Heyes (2022) Emotion

- Evidence of negative mood spreading faster
 - Among a sample of adolescent musicians
 - Co-rumination



Hill et al (2015) Plos One

- Having sufficient friends with positive mood doubled the probability of an adolescent recovering from depression in a 6-12m period

Using peers to prevent mental health and substance use

Programs currently under development



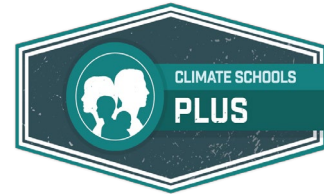
Digital program empowering young people to support peers

RCT recruiting



A computerised drug prevention program for Aboriginal and Torres Strait Islander secondary students

RCT underway



An online drug prevention program for parents and students

RCT

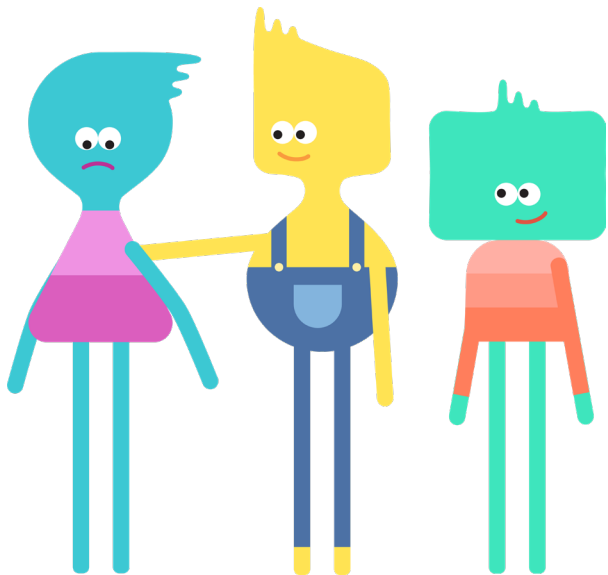


An online multiple health behaviour change program to reduce chronic disease risk among students

RCT

Young people value friendships

- Most young people don't seek professional help¹.
- Peers No. 1 source of support²



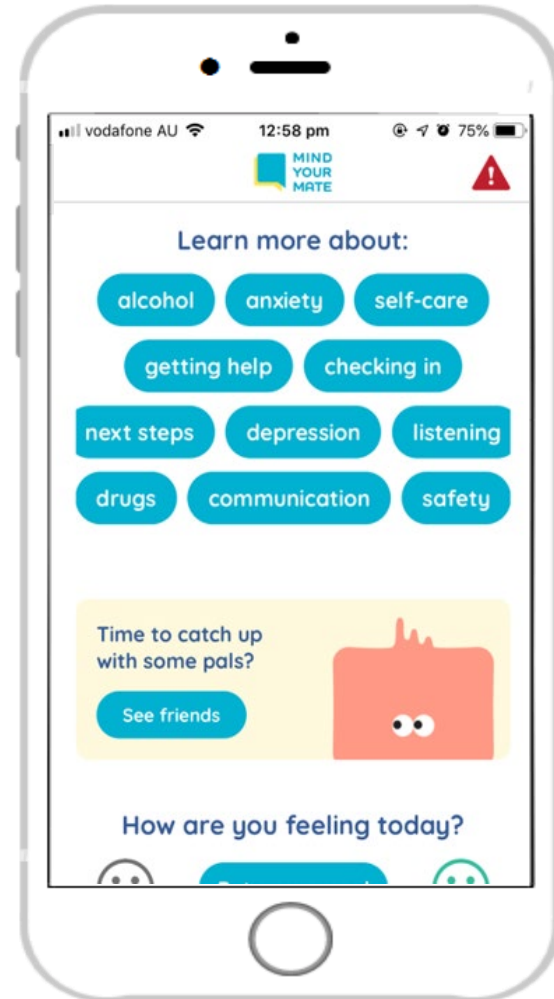
The three most highly valued items by >25,000 young people nationally were:

- 1. friendships (other than family) (82.5%)**
2. family relationships
3. school or study satisfaction.

When looking for help, they turn to their friends first (83%).

App content

- Anxiety, depression and substance use **literacy**
- **Skill** modules:
 - Active listening
 - Harm minimisation
 - Having difficult conversations with friends
 - Self-care (including self-regulation and coping skills)
- **Referral** and support options
- Real-life examples
- Normative education (factual norms around substance use and mental health to **challenge misconceptions/ stigma**)



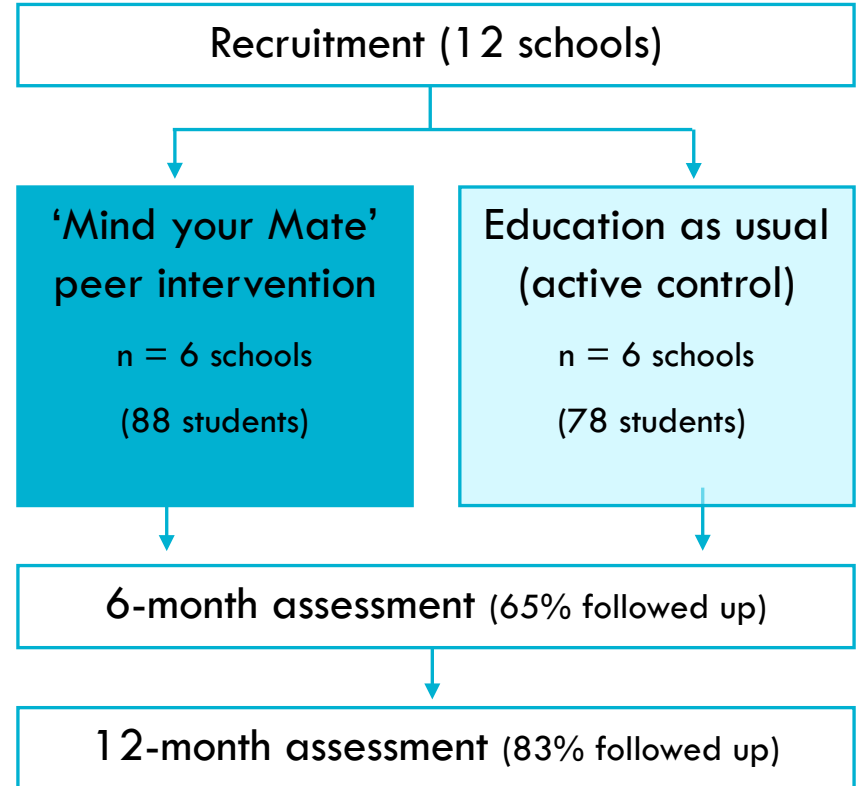
RCT Study

Aim

Evaluate the effectiveness of the program among adolescents

Intervention study

- N=166 Year 9 students (15.3 years old)
- One classroom lesson
- App used for 12 months

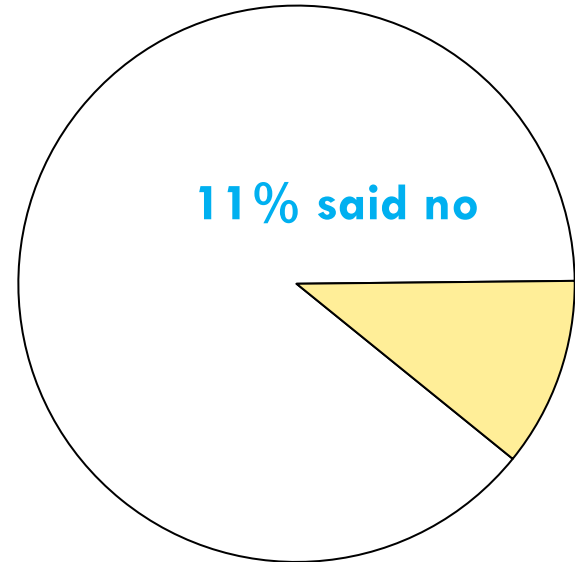


Baseline help seeking

Where would you go for help with an important issue?

1	Friends
2	Parents
3	Internet
4	Relative
5	Sibling

Do you have someone you could turn to in a crisis?



Outcomes over 12 months

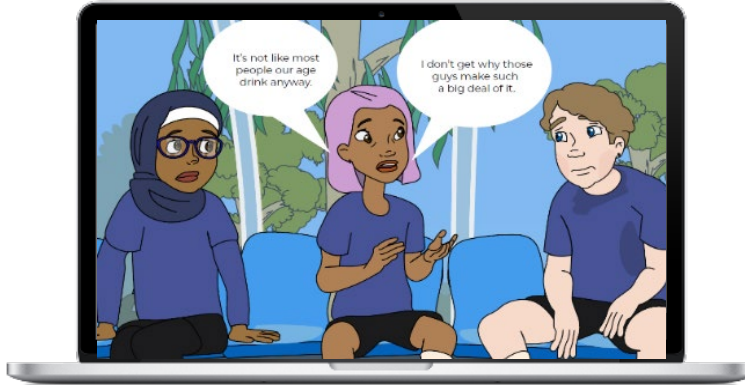
We observed **decreased depressive symptoms** in the intervention group, compared to the control group

No other significant differences in:

- anxiety
- general psychological distress
- help-seeking
- knowledge & mental health literacy (started at high levels)
- alcohol or other drug use (low overall, little change)

Conclusion

- First digital trial to provide peer support for prevention of MH and SU delivered through schools
- Promising results for youth depression
- Engagement with app was a challenge
- Next steps: 4 lesson classroom module



Practical strategies prevent mental health and substance use

Supporting parents



Encourage connection

Regular time with undivided attention
Get involved in things they enjoy



Get to know their friends (if they will let you!)



Get to know your friend's parents



Be available and approachable

For when things go right and when things go wrong

Supporting teachers

- Behaviours spread through peer groups
- Talk openly about the influence of peers and strategies for students to find their own voice
- Assertiveness training
- Look to evidence-based programs to implement in a year group if needed

Empowering young people

By not drinking or taking drugs you are in the majority

Some strategies to avoid peer pressure

1. Avoid situations
2. Give a reason
3. Walk away
4. Be assertive
5. Be a 'broken record'

Take care of friends

Resources

Connected. Nicholas Christakis. TED talk:

<https://www.youtube.com/watch?v=2U-tOghblfE&t=1s>

Inventing ourselves. Sarah-Jayne Blakemore

The Adolescent Brain video. Dan Siegel.

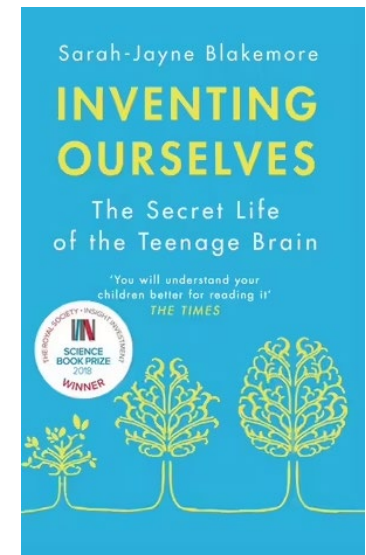
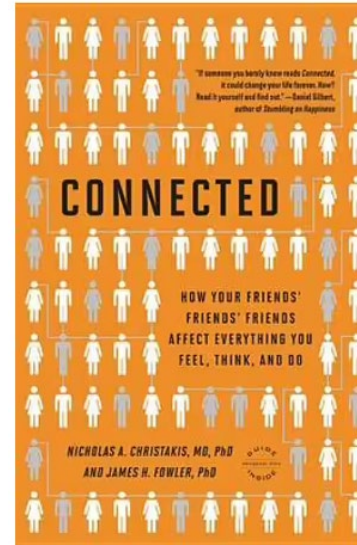
<https://www.youtube.com/watch?v=0O1u5OEc5eY>

Respect your brain

<https://yourroom.health.nsw.gov.au/getting-help/Pages/Respect-Your-Brain.aspx>

Positive Choices Factsheets

- <https://positivechoices.org.au/parents/how-parents-can-protect-against-drug-use>
- <https://positivechoices.org.au/parents/alcohol-and-risk-taking>
- <https://positivechoices.org.au/teachers/making-choices>



The adolescent brain



<https://www.youtube.com/watch?v=0O1u5OEc5eY>

Thank you

www.mindyourmate.org

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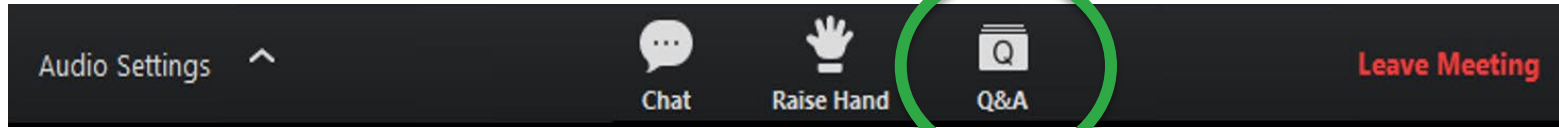
PREMISE
NHMC CENTRE OF RESEARCH EXCELLENCE





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Questions?





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