

November 2025

Future Proofing Study

Research insights from Years 8–11 surveys (2019–2024)

Introduction

In 2019 the Black Dog Institute launched the Future Proofing Study in order to better understand the mental health of Australian adolescents. It is now one of the largest and most comprehensive long-term studies of its kind.

A total of 6,388 students enrolled in the study in Year 8. These students have completed anonymous, online surveys every year about their mental health, wellbeing, sleep, peer and family relationships, school life, technology use – and more.

The aim of this study is to work out how to prevent adolescent mental health challenges by identifying the risks that

contribute to poor mental health, and the protective factors that help young people thrive.

These findings are being used to guide schools, parents, policymakers, and health services to support better outcomes for young Australians.

Who is participating?

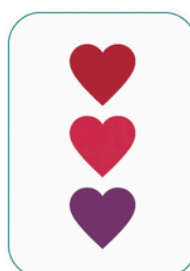
Participants reflect the diversity of the Australian adolescent population. The study includes **130+ schools**, largely located in NSW and in other capital cities around Australia. These schools represent all school sectors: Government, Catholic, and Independent.



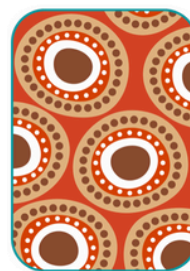
6,388
students



49% female
47% male
3% gender diverse
1% prefer not to say



12%
Sexuality
diverse



5%
Aboriginal
and Torres
Strait Islander

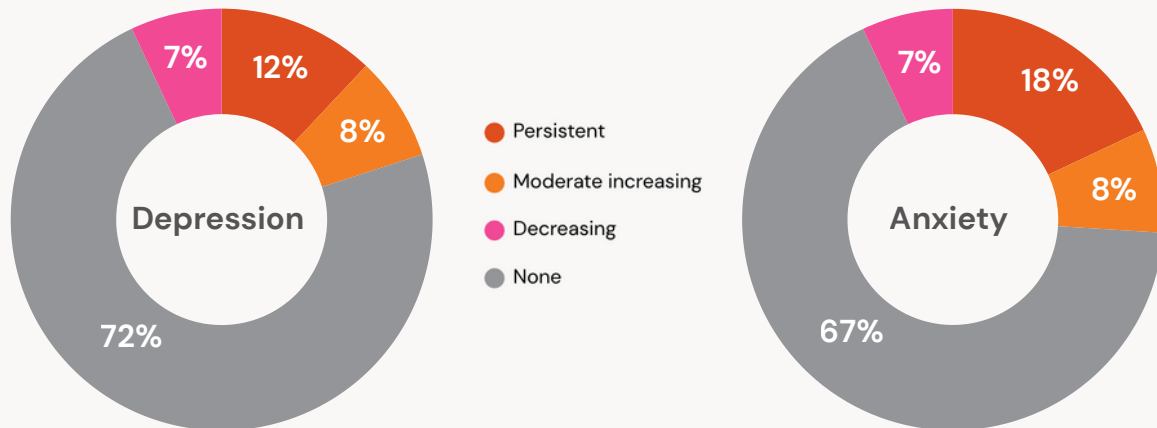


76%
metropolitan
24%
regional



Different trajectories of depression and anxiety between Year 8-11

As students progress through high school, different trajectories of depression and anxiety emerge. Most students have minimal to no symptoms ('none'). A proportion develop moderate-level symptoms during adolescence ('moderate increasing'). Some students have initially high symptoms that improve over time ('decreasing'), and others experience persistent-high symptoms throughout adolescence ('persistent').



Characteristics associated with higher risk trajectories of depression and anxiety

Risk factor	Persistent depression	Increasing depression	Persistent anxiety	Increasing anxiety
♀ Female	●	●	●	●
🏠 Peer problems	●	●	●	●
⚠️ Higher neuroticism ¹	●	●	●	●
👨👩 Negative family interactions	●	●	●	○
🎒 Adverse childhood experiences	●	○	●	○
👥 Victim of bullying	●	○	●	○
👤 Lower conscientiousness ²	●	○	●	○
♂♀ Gender diverse	●	○	○	○

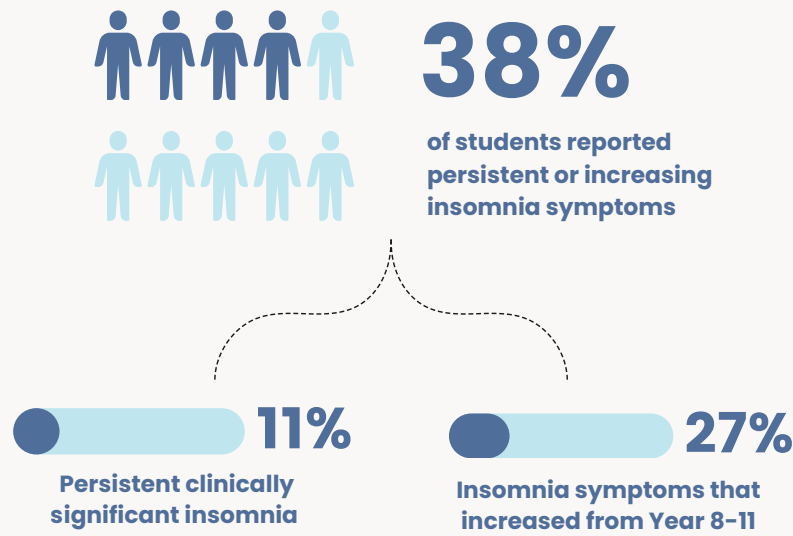
¹ Neuroticism: A personality trait describing how prone someone is to experiencing negative emotions.

² Conscientiousness: A personality trait reflecting how organised, responsible, dependable, and self-disciplined a person is.









Sleep problems

Getting 8-10 hours of sleep each night remains one of the strongest predictors of adolescent wellbeing. However, a significant number of young people report symptoms of insomnia. Students with clinically significant insomnia (difficulties falling or staying asleep despite adequate opportunity for sleep) were 4x more likely to experience high anxiety and 6x more likely to experience high depression symptoms.

Between Years 8 and 11:

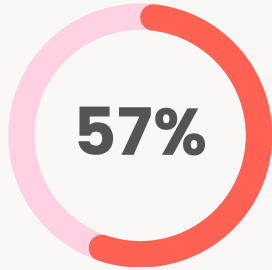


Characteristics associated with different patterns of insomnia

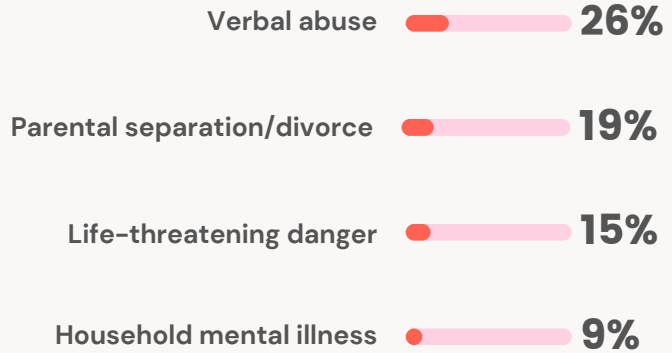
Risk factor	Persistent insomnia	Increasing insomnia
 Female	●	●
 Negative family interactions	●	●
 Emotional and peer problems	●	●
 Conduct and hyperactivity problems	●	●
 Gender diverse	●	○
 Diagnosed with ≥1 disabilities	●	○
 Lower school connectedness	○	●
 Adverse childhood experiences	○	●



Exposure to adverse childhood experiences (ACEs)



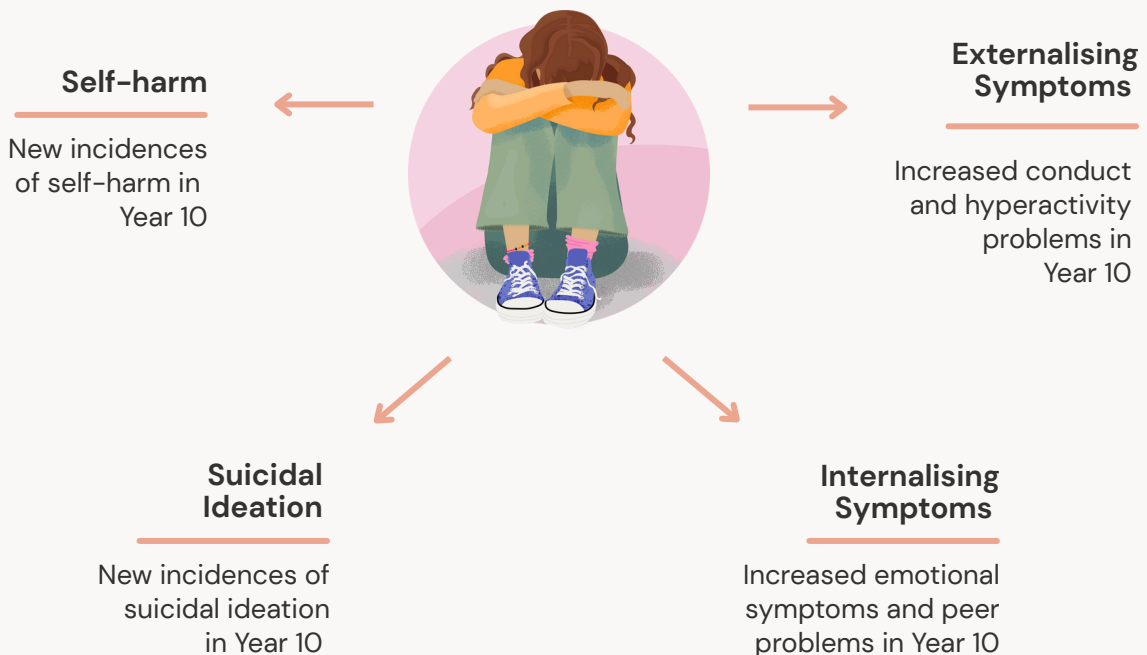
of participants reported at least one ACE



Mental health outcomes associated with ACEs over time

Exposure to ACEs by Year 8 predicted a range of negative outcomes for mental health in Year 10. These findings emphasise the need for better family support during the early years, and for mental health screening and intervention for children and adolescents exposed to ACEs.

ACEs reported in Year 8 were associated with:



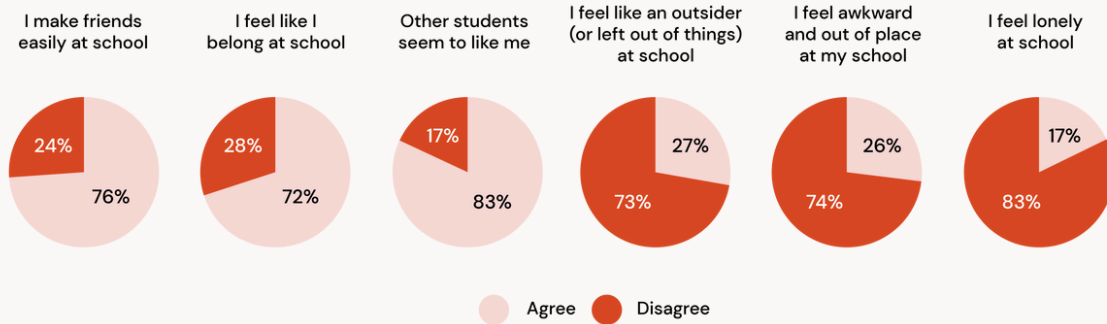
Corkish et al. (2025). Adverse Childhood Experiences and Adolescent Mental Health Symptoms: The Role of Peer Interactions. *Journal of Child & Adolescent Trauma*. <https://doi.org/10.1007/s40653-025-00756-4>

Tang et al. (2025). The effect of adverse childhood experiences on the development of self-harm and suicidality: A prospective cohort study. *Psychiatry Research*. <https://doi.org/10.1016/j.psychres.2025.116683>



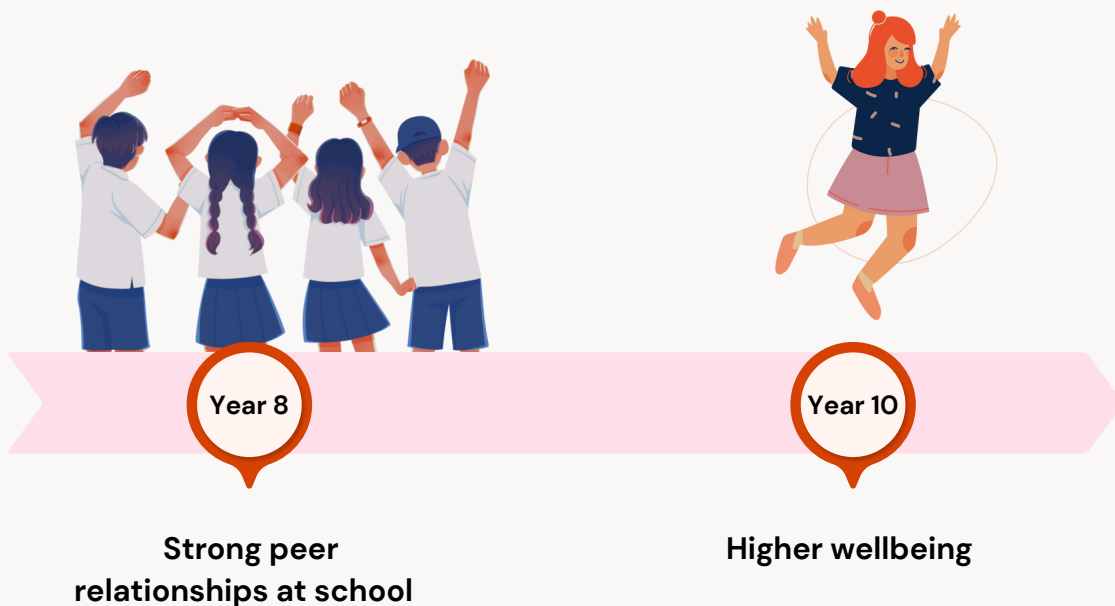
School connectedness

Adolescents spend much of their time at school, making it a key setting where risks may be increased or mitigated. What appears to matter most in the school environment for adolescent wellbeing is the quality of their peer relationships and their sense of belonging at school. However, approximately 1 in 4 students experience low levels of connectedness at school.



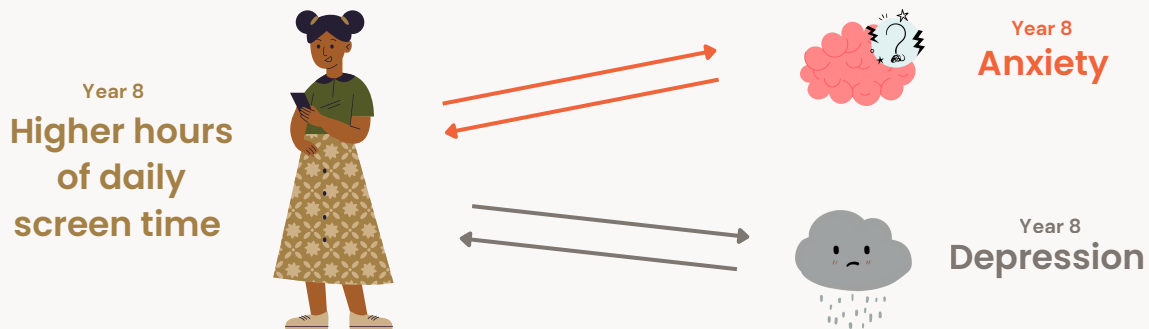
School connectedness and student wellbeing over time

In Year 8, students who felt more connected to their school had higher levels of wellbeing in Year 10. In contrast, the broader structural characteristics of schools (such as size, governance, or student-teacher ratios) played no significant role in student wellbeing in Year 8 or Year 10. This reinforces the importance of relationships, belonging, and inclusive school cultures as central to the prevention of adolescent mental health challenges.



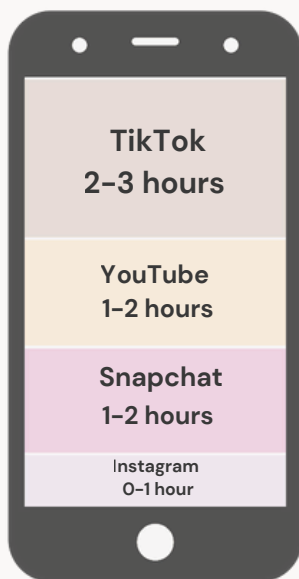
Screen time and mental health

We found cross-sectional associations between overall daily screen time with depression and anxiety when measured at a single point in time, however, these associations were not sustained over time. This may indicate that the relationship between screen time and mental health is bidirectional, meaning that mental health symptoms and screen time can influence each other in different ways. For example, if an adolescent is feeling low, they may spend more time online, and, depending on what their screen time entails, this may in turn influence their mood.

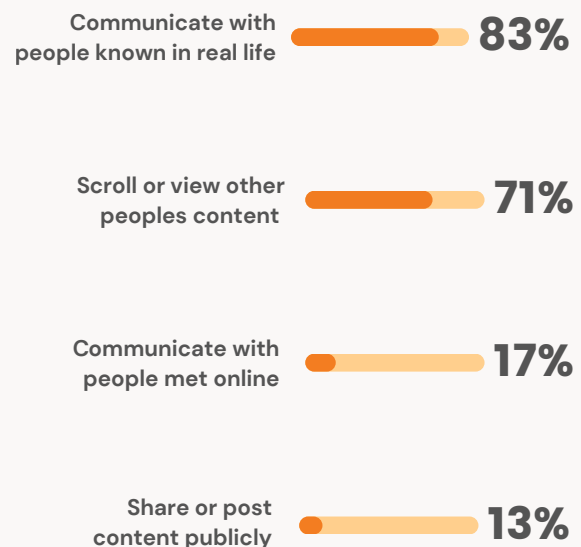


In addition, **what** adolescents do online and the **context** in which they use screens is likely to matter more than the number of hours spent online. The relationship between screen use and mental health is complex, nuanced, and multi-faceted.

How long do teens spend on social media apps daily?

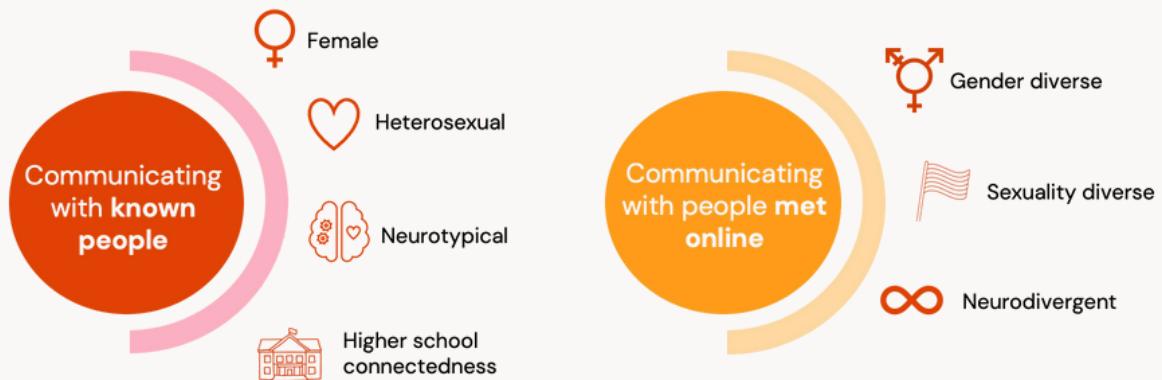


What do teens do on social media?

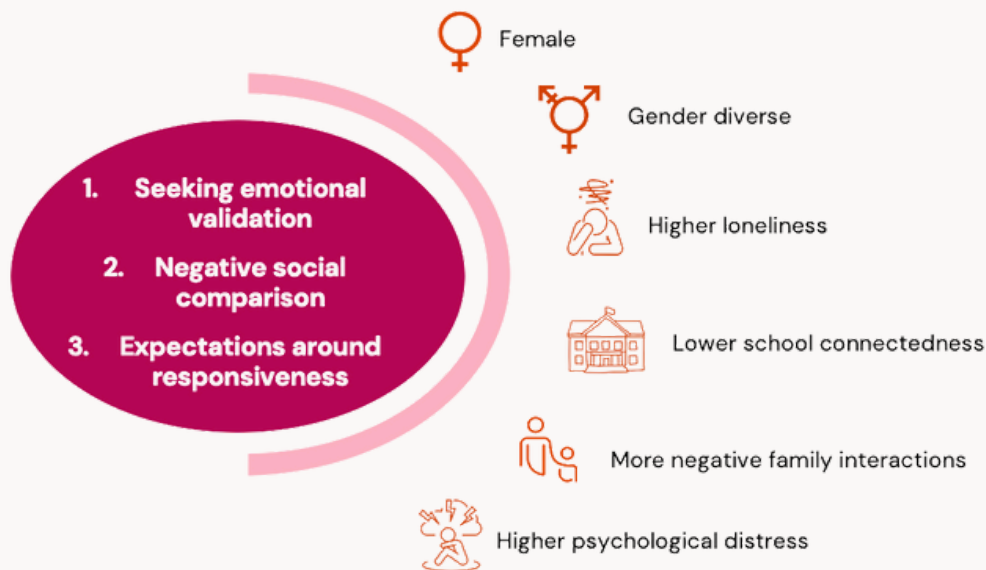


Patterns of social media use in different subgroups of adolescents

We found that patterns of social media use vary widely by who the user is and their characteristics. Adolescents who are female, heterosexual, neurotypical, or with higher levels of school connectedness were more likely to use social media to communicate with people known in real life. Whereas gender diverse, sexuality diverse, and neurodivergent adolescents were more likely to use social media to communicate with people met online.



We also found that adolescents who were more vulnerable to mental health problems used social media in more problematic ways. This included seeking emotional validation (i.e., checking social media to see if others feel the same way they do), negative social comparison (i.e., comparing themselves with others on social media, which can lower self-esteem), and having greater expectations around responsiveness (i.e., expecting likes or replies to their posts or content, and feeling disappointed when this does not happen).



Conclusion

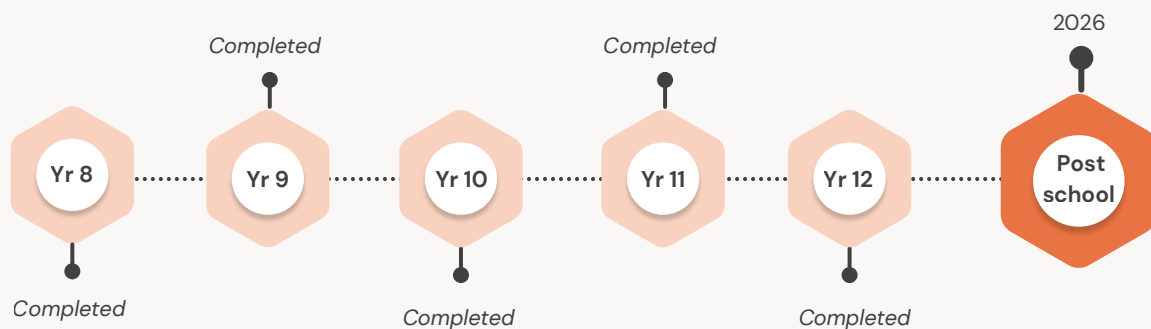
The Future Proofing Study highlights that while most young people navigate adolescence well, some groups are consistently at higher risk for mental health problems. The findings point to clear and actionable opportunities for prevention:

- 1** Promote healthy sleep habits
- 2** Build connections at school
- 3** Enable positive family relationships
- 4** Provide trauma-informed care*
- 5** Reduce problematic screen use
- 6** Prioritise at risk groups



Next steps

As our longitudinal research findings have become available, we have been increasingly requested to share these with policymakers and community leaders working to improve adolescent mental health and wellbeing. We are also developing a range of translational resources for schools and families, particularly focusing on sleep, screen use, and peer connectedness. In addition, we are continuing with the final year of post-school data collection, which will provide valuable insights into how young people experience the transition from high school to young adulthood. There is still much to do, and we are committed to making the most of this data in order to create meaningful change for young people.



* Trauma-informed care is an approach that recognises the widespread impact of trauma and seeks to create safe, supportive environments that avoid re-traumatisation. It emphasises understanding, empathy, choice, and collaboration in all interactions and services.

Thank you

We are extremely grateful to the students, families, and schools who are involved in this research. Together, their efforts are contributing towards changing the future of adolescent mental health in Australia.

For questions or comments, please contact the research team on futureproofing@blackdog.org.au



Future Proofing Study Publications

Stevens, S. K., Maston, K., Beames, J. R., O'Dea, B., Torok, M., Calear, A. L., Christensen, H., Batterham, P. J., & Werner-Seidler, A. (Under review). Longitudinal Associations Between School-, Staff-, and Student-Level Factors with Student Mental Health and Wellbeing. Pre-print: <https://doi.org/10.21203/rs.3.rs-7341749/v1>

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Calear, A. L., Batterham, P. J., Werner-Seidler, A., Maston, K., Torok, M., O'Dea, B., Larsen, M. E., & Christensen, H. (2025). Multilevel risk and protective factors for self-harm, suicidal ideation and suicide attempt in adolescents. *Journal of Child Psychology and Psychiatry*. <https://doi.org/10.1111/jcpp.70024>

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Werner-Seidler, A., Mackinnon, A., Batterham, P. J., Calear, A. L., Larsen, M. E., Torok, M., O'Dea, B., Maston, K., Huckvale, K., Fujimoto, H., Johnston, L., Brown, L., Bartholomew, A., Bal, D., Beames, J. R., Skinner, S. R., Boydell, K. M., Schweizer, S., Lingam, R., ... Christensen, H. (2025). Future Proofing Study: A cluster randomised controlled trial evaluating the effectiveness of a universal school-based cognitive-behavioural programme for adolescent depression. *BMJ Mental Health*, 28(1). <https://doi.org/10.1136/bmjment-2024-301426>

Marino, J. L., Werner-Seidler, A., Maston, K., Lin, A., Perry, Y., Bista, S., Davies, C., Christensen, H., & Skinner, S. R. (2024). Sexuality and Gender Diversity Among Adolescents in Australia, 2019–2021. *JAMA Network Open*, 7(10), e2444187. <https://doi.org/10.1001/jamanetworkopen.2024.44187>

Bartholomew, A., Maston, K., Brown, L., Fujimoto, H., Hodgins, M., Christensen, H., & Werner-Seidler, A. (2024). Self-Reported Concerns among Australian Secondary School Students: Associations with Mental Health and Wellbeing. *Child & Youth Care Forum*, 53(6), 1429–1450. <https://doi.org/10.1007/s10566-024-09804-w>

Fujimoto, H., Heywood, A., Maston, K., Brown, L., Bartholomew, A., Werner-Seidler, A., Christensen, H., & Batterham, P. J. (2024). What aspects of the pandemic had the greatest impact on adolescent mental health: Duration of lockdown or subjective experience? *Child and Adolescent Psychiatry and Mental Health*, 18(1), 63. <https://doi.org/10.1186/s13034-024-00759-3>

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Beames, J. R., Werner-Seidler, A., Hodgins, M., Brown, L., Fujimoto, H., Bartholomew, A., Maston, K., Huckvale, K., Zbukvic, I., Torok, M., Christensen, H., Batterham, P. J., Calear, A. L., Lingam, R., & Boydell, K. M. (2023). Implementing a Digital Depression Prevention Program in Australian Secondary Schools: Cross-Sectional Qualitative Study. *JMIR Pediatrics and Parenting*, 6(1), e42349. <https://doi.org/10.2196/42349>

Minihan, S., Kumle, L., Maston, K., Bal, D., Werner-Seidler, A., Christensen, H., & Schweizer, S. (2024). The relationship between cognitive and affective control and adolescent mental health. *JCPP Advances*, 4(1), e12204. <https://doi.org/10.1002/jcv.212204>

Batterham, P. J., Werner-Seidler, A., O'Dea, B., Calear, A. L., Maston, K., Mackinnon, A., & Christensen, H. (2024). Psychometric properties of the Distress Questionnaire-5 (DQ5) for measuring psychological distress in adolescents. *Journal of Psychiatric Research*, 169, 58–63. <https://doi.org/10.1016/j.jpsychires.2023.11004>

Braund, T. A., O'Dea, B., Bal, D., Maston, K., Larsen, M. E., Werner-Seidler, A., Tillman, G., & Christensen, H. (2023). Associations Between Smartphone Keystroke Metadata and Mental Health Symptoms in Adolescents: Findings From the Future Proofing Study. *JMIR Mental Health*. <https://mental.jmir.org/2023/1/e44986>

Werner-Seidler, A., Maston, K., Calear, A. L., Batterham, P. J., Larsen, M. E., Torok, M., O'Dea, B., Huckvale, K., Beames, J. R., Brown, L., Fujimoto, H., Bartholomew, A., Bal, D., Schweizer, S., Skinner, S. R., Steinbeck, K., Ratcliffe, J., Oei, J.-L., Venkatesh, S., ... Christensen, H. (2023). The Future Proofing Study: Design, methods and baseline characteristics of a prospective cohort study of the mental health of Australian adolescents. *International Journal of Methods in Psychiatric Research*, 32(3), e1954. <https://doi.org/10.1002/mpr.1954>

Beames, J. R., Lingam, R., Boydell, K., Calear, A. L., Torok, M., Maston, K., Zbukvic, I., Huckvale, K., Batterham, P. J., Christensen, H., & Werner-Seidler, A. (2021). Protocol for the process evaluation of a complex intervention delivered in schools to prevent adolescent depression: The Future Proofing Study. *BMJ Open*, 11(1), e042133. <https://doi.org/10.1136/bmjopen-2020-042133>

Werner-Seidler, A., Huckvale, K., Larsen, M. E., Calear, A. L., Maston, K., Johnston, L., Torok, M., O'Dea, B., Batterham, P. J., Schweizer, S., Skinner, S. R., Steinbeck, K., Ratcliffe, J., Oei, J.-L., Patton, G., Wong, I., Beames, J., Wong, Q. J., Lingam, R., ... Christensen, H. (2020). A trial protocol for the effectiveness of digital interventions for preventing depression in adolescents: The Future Proofing Study. *Trials*, 21(1), 2. <https://doi.org/10.1186/s13063-019-3901-7>