



Targeting mental health through improved sleep

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Interviews can be conducted under embargo to be published/broadcast on or after 14 October 2021.

2021 Studies into sleep and mental health – Key Take Home Messages

1. Associations between sleep and mental health

Appleton SL, Battle J, Reynolds AC, Gill T, Melaku Y, Adams RJ. Multidimensional sleep health is associated with mental well-being in Australian adults. *J Sleep Res* 2021 (accepted 21/8/2021) <https://onlinelibrary.wiley.com/doi/10.1111/jsr.13477>

- We examined the association of multidimensional sleep health with mental health in a representative survey of 2,044 adults in Australia aged 18-90y, funded by the SHF
- Multidimensional sleep health, which recognises that other factors beyond sleep duration, including regular sleep and wake times, sleep efficiency, how alert a person during waking hours and how satisfied a person is with their sleep, are all important for health.
- The results showed that better multidimensional healthy sleep factors were associated with fewer current symptoms and lower severity of anxiety and depression, even after adjusting for other factors that can affect mental health, such as age, gender, pain, other chronic conditions and financial stress.
- Conclusion: better sleep is associated with less symptoms of anxiety and depression. Sleep health promotion should focus on a more holistic understanding of sleep than just duration

2. Depression and insomnia association

Sweetman A, Lack L, Van Ryswyk E, Vakulin A, Reed RL, Battersby MW, Lovato N, Adams RJ. Co-occurring depression and insomnia in Australian primary care: recent scientific evidence. *Med J Aust.* 2021 Sep 6
<https://www.mja.com.au/journal/2021/215/5/co-occurring-depression-and-insomnia-australian-primary-care-recent-scientific>

- Depression and insomnia (sleeping difficulties) commonly co-occur. These two disorders share bi-directional relationships.
- There are effective treatments for both insomnia and depression that should be made available to people with both conditions.
- Cognitive Behavioural Therapy for insomnia (CBT-i) is an effective treatment that improves sleep and mental health problems.

3. Sleep disturbances in those with mental health conditions

Metse, A. P., Fehily, C., Clinton-McHarg, T., Wynne, O., Lawn, S., Wiggers, J., & Bowman, J. A. (2021). Self-reported suboptimal sleep and receipt of sleep assessment and treatment among persons with and without a mental health condition in Australia: a cross sectional study. *BMC public health*, 21(1), 1-12. <https://link.springer.com/article/10.1186/s12889-021-10504-6>

- In a population sample of Australian adults, a higher proportion of people with a mental health condition, compared to those without, reported experiencing suboptimal sleep (65% versus 38%).
- Rates of assessment (38% versus 12%) and treatment (30% versus 7%) for sleep by a health care clinician were low for both groups, but higher for people with a mental health condition.



- People with a mental health condition were more likely to desire treatment for their sleep (37% versus 16%).

4. Sleep and mental health during covid-19

Varma, P., Junge, M., Meaklim, H., & Jackson, M. L. (2021). Younger people are more vulnerable to stress, anxiety and depression during COVID-19 pandemic: A global cross-sectional survey. *Progress in Neuro-Psychopharmacology and Biological Psychiatry*, 109, 110236. <https://www.sciencedirect.com/science/article/abs/pii/S0278584620305522>

- Investigating the impact of the COVID-19 pandemic on sleep and psychological distress: responses from 1653 participants from 63 countries.
- Over 70% of respondents in younger and older age groups had greater than moderate levels of stress, 50% reported poor sleep.
- Younger people, plus those with pre-existing mental health conditions, were more vulnerable to distress, and therefore experienced more symptoms of anxiety, depression and sleep disturbances. These symptoms were driven by sleep disturbances and loneliness.
- We recommend urgent age-specific interventions to help reduce the impact of the distress associated with the pandemic.

5. Adolescents, homeschooling, sleep, circadian rhythms and mental health

Stone JE, Phillips AJK, Chachos E, Hand AJ, Lu S, Carskadon MA, Klerman EB, Lockley SW, Wiley JF, Bei B, Rajaratnam SMW; CLASS Study Team. In-person vs home schooling during the COVID-19 pandemic: Differences in sleep, circadian timing, and mood in early adolescence. *J Pineal Res.* 2021 Jul 17;71(2):e12757. doi: 10.1111/jpi.12757. Epub ahead of print. PMID: 34273194; PMCID: PMC8420593. <https://pubmed.ncbi.nlm.nih.gov/34273194/>

- This study looked at sleep, circadian timing and mood in adolescents aged 12-13 during pre-pandemic in-person learning, and remote learning during lockdown in Melbourne.
- During lockdown (2020) remote learning, compared to pre-pandemic in-person learning, teens in Melbourne:
 - woke 49 minutes later, and slept 22 minutes more,
 - work at a more appropriate circadian time, and
 - reported lower anxiety and less daytime sleepiness
- Our findings support the hypothesis – which has been a topic of theoretical debate – that if more time is provided before school in the morning, adolescents will use some of it for sleep, which can be beneficial to learning.
- While there have been studies on self-reported sleep and mood in students, globally, during various lockdowns, this is the first to use rigorous, objective measures of sleep and circadian timing. The findings point to some perhaps unexpected benefits of remote learning for teens, who got more sleep, slept in better alignment with their internal body clock, and felt less sleepy and less anxious.



6. Sleep and mental health in Sudanese refugees

Bruck, D., Atem Deng, S., Kot, B., & Grossman, M. (2021). Sleep difficulties among South Sudanese former refugees settled in Australia. *Transcultural psychiatry*, 58(2), 172-186. <https://journals.sagepub.com/doi/abs/10.1177/1363461520903122>

- We investigated self-reported sleep, mental health and trauma related nocturnal behaviours among South Sudanese Australians who were former refugees. We also examined sex differences in their responses, and sought to determine risk factors for insomnia in this population.
- Comparisons were also made to a general Australian sample of 1,512 respondents, obtained in a previously published study using the same questions regarding sleep difficulties.
- South Sudanese former refugee *men* report many more problems including high rates of clinical insomnia, nocturnal post-trauma symptoms, restless legs syndrome, daytime sleepiness, fatigue and unrefreshing sleep than men in the general Australian population and South Sudanese women.
- Concluded that unresolved pre-migration trauma stress may be affecting about half of the South Sudanese men in Australia, even after a decade since migration.

7. Work, mental health and sleep

Bunjo, L. J., Reynolds, A. C., Appleton, S. L., Dorrian, J., Vetter, C., Gill, T. K., & Adams, R. J. (2021). Sleep Duration Moderates the Relationship Between Perceived Work-Life Interference and Depressive Symptoms in Australian Men and Women from the North West Adelaide Health Study. *International journal of behavioral medicine*, 28(1). <https://web.b.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=10705503&AN=149024827&h=bio9bhxZPqOhEZVnvaXZ8Km7UwYTJvIHvptiF%2f9oxvuFYrHYKiJ2NKCqji8ap4%2fcrOB6V2E4znHUD3XKLqSI0g%3d%3d&crI=c&resultNs=AdminWebAuth&resultLocal=ErrCrINotAuth&crIhashurl=login.aspx%3fdirect%3dtrue%26pr ofile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d10705503%26AN%3d149024827>

- The relationship between work-life interference, sleep and depressive symptoms was not clear at a population level
- The strongest effect of work-life interference on depressive symptoms was observed in short sleepers, for men and women, but the effect was stronger in women
- The effect of work-life interference on depressive symptoms weakened with longer sleep durations
- Supporting healthy sleep in the workplace to manage the relationship between work-life interference and depressive symptoms may be helpful, especially when acute or chronic causes of work-life interference are not easily addressed
- We need sleep education and support strategies for Australian workforces to support mental health