



The Association
for Child and Adolescent
Mental Health

THE BRIDGE

July 2020

**Can genetic
discoveries for
age-at-first-
birth predict
disinhibitory
behaviours?**

**Boys and girls
show different
vulnerabilities
to maternal
postnatal
depression**

Plus

Research
digests from
JCPP and
CAMH





Dr Stephanie Lewis

The Bridge Editor

It is an absolute honour to be the new editor of *The Bridge*. I've taken over from Dr Juliette Kennedy, who has been *The Bridge's* editor since 2017. Juliette led this publication to its current monthly digital format and maintained high-quality trusted content. ACAMH and I would like to thank Juliette very much for her hard work and dedication.

As editor of *The Bridge*, I will strive to address our aim of disseminating child and adolescent mental health research to inform clinical practice and future research. Achieving this aim is incredibly important because mental illness has a devastating impact on many young people's lives,¹ and reducing this burden requires evidence-based clinical developments. But understanding and implementing research is challenging.² At an individual level, busy clinicians, researchers, and other professionals in the field often struggle to find time to keep up-to-date with scientific literature – I know this from personal experience! So, to make the literature more accessible, *The Bridge* brings you research highlights in a digestible format.

We will continue to summarise relevant child and adolescent mental health research published in ACAMH's journals, JCPP and CAMH. In this issue, we summarise recent studies on a wide range of topics – including sleep, sensory symptoms, emotional symptoms, disinhibition, alcohol misuse, complex PTSD symptoms, and self-harm – which reveal new insights helping us to better understand and address psychopathology in young people.

We will also produce more articles written by experts for *The Bridge*, including academic and clinical leaders, as well as young people who have had mental health difficulties and their parents. Their experience will provide valuable context and further food for thought. Importantly, *The Bridge* will continue to be freely available, emailed to ACAMH members monthly, and can be accessed by all from the ACAMH website: www.acamh.org/the-bridge. So please do share with your colleagues.

I'd also really like to hear from you, our readers. If you have any suggestions or feedback on *The Bridge*, please email me at stephanie.j.lewis@kcl.ac.uk.

I look forward to bringing you more accessible and informative child and adolescent mental health articles in future!

References

- ¹ Whiteford HA, Degenhardt L, Rehm J, et al. (2013) Global burden of disease attributable to mental and substance use disorders: findings from the Global Burden of Disease Study 2010. *The Lancet* **382**: 1575-86. doi: 10.1016/S0140-6736(13)61611-6
- ² Lenfant C. (2003) Clinical research to clinical practice — lost in translation? *N Engl J Med* **349**: 868-74. doi: 10.1056/NEJMsao35507



Contents:



Boys and girls show different vulnerabilities to maternal postnatal depression



Can genetic discoveries for age-at-first-birth predict disinhibitory behaviours?



Can we predict (complex) PTSD in young people in foster care?



DBT-A can enhance emotion regulation in ethnic minority youth



More research is needed into effective interventions for sensory symptoms



Persistent peer victimization is associated with differential effects on cortisol production between boys and girls



Presenting as 'in control' may mask risk for alcohol misuse in adolescents with symptoms of BPD



Variable sleep schedules might put preschoolers at risk of academic difficulties



Who can best support young people who self-harm?



Would delaying the school day prevent anxiety in adolescents?



Dr Jessica K. Edwards

Research highlights in this edition are prepared by Dr Jessica K. Edwards. Jessica is a freelance editor and science writer, and started writing for 'The Bridge' in December 2017.





Boys and girls show different vulnerabilities to maternal postnatal depression

By Dr. Jessica K Edwards

In 2019, Jonathan Hill and colleagues published data arising from the Wirral Child Health and Development Study (WCHADS) on the sex differences in foetal origins of child emotional symptoms. Their findings suggested that prenatal anxiety and depression confer risk in different ways in boys and girls,^{1,2} and later work confirmed that there might be sex differences in the biological underpinning of psychopathology.^{3,4}

“The hypothesis driving this previous work was that children’s vulnerability to postnatal maternal depression or anxiety is altered by how anxious or depressed their mothers have been during pregnancy”, says Hill. “We found preliminary evidence that boys are more vulnerable to the cumulative effects of prenatal and postnatal depression and that girls are more vulnerable when postnatal depression occurs in mothers who were not depressed during pregnancy.” This paradigm essentially means that both prenatal depression and child sex alter the effect of postnatal depression. However, because such a three-way interaction is vulnerable to chance, the findings require extensive statistical replication.

In an attempt to replicate their original findings, Braithwaite et al. pre-registered analyses of data on >8,000 children at 3.5 years-of-age who were included in the Avon Longitudinal Study of Parents and Children (ALSPAC). As they now report in the *Journal of Child Psychology and Psychiatry*, their analyses from the ALSPAC cohort do replicate those from the WCHADS. As before, the daughters of mothers with elevated postnatal depression (but who had not been depressed during pregnancy), exhibited higher emotional problems scores than sons. The sons were more vulnerable to the combination of high prenatal depression and high postnatal depression. In contrast to the WCHADS finding, the effect in ALSPAC was stronger in boys than in girls.

“If other investigators confirm this finding it will imply that trials aimed at improving outcomes for the children of mothers with depression, and commissioners of clinical services, will need to identify vulnerability by levels of prenatal depression and sex of the child, as well as by postnatal depression”, explains Hill. “The clinical question arising from this and other recent studies is whether Child and Adolescent Mental Health practitioners should take account of the sex of the child in treatment planning.”

Referring to:

Braithwaite, E.C., Pickles, A., Wright, N., Sharp, H. & Hill, J. (2020), *Sex differences in foetal origins of child emotional symptoms: a test of evolutionary hypotheses in a large, general population cohort*. *J. Child Psychol. Psychiatr.* doi: 10.1111/jcpp.13229.

References:

- ¹Hill, J. et al. (2019). *Mismatched prenatal and postnatal maternal depressive symptoms and child behaviours: A sex-dependent role for NR3C1 DNA methylation in the Wirral Child Health and Development Study*. *Cells*, 8:943. doi: 10.3390/cells8090943.
- ²Hill, J. et al. (2019). *Predictions of children’s emotionality from evolutionary and epigenetic hypotheses*. *Sci. Rep.* 9:1-11. doi: 10.1038/s41598-019-39513-7.
- ³Wright, N et al. (2019). *Sex-dependent associations between maternal prenatal cortisol and child callous-unemotional traits: Findings from the Wirral Child Health and Development Study*. *Psychoneuroendocrinology*, 109: 104409. doi: 10.1016/j.psyneuen.2019.104409.
- ⁴Wright, N. et al. (2019). *Callous-unemotional traits, low cortisol reactivity and physical aggression in children: findings from the Wirral Child Health and Development Study*. *Transl. Psychiatry*, 9: 79. doi: 10.1038/s41398-019-0406-9.

See also:

<http://www.bristol.ac.uk/alspac/>
<https://www.liverpool.ac.uk/institute-of-life-and-human-sciences/schools-and-departments/departments-of-psychological-sciences/research/first-steps/about/>



Can genetic discoveries for age-at-first-birth predict disinhibitory behaviours?

By Dr. Jessica K Edwards

Being pregnant for the first time at a young age is associated with disinhibitory behaviours, such as low self-control, antisocial behaviour and substance misuse.^{1,3} A recent genome wide association study (GWAS) demonstrated that genes have a role in these associations.⁴ Now, researchers have tested the hypothesis that molecular-genetic influences on age-at-first-birth can predict disinhibition.



Leah Richmond-Rakerd and colleagues included nearly 3,000 participants with genotype data from the longitudinal Environmental Risk (E-Risk)⁵ and Dunedin⁶ studies in their analysis. They calculated the polygenic risk score for age-at-first-birth and tested whether it was associated with disinhibitory outcomes across the participants' lives. In both cohorts, the polygenic risk score modestly predicted low childhood self-control, externalizing psychopathology, criminal offending, substance dependence, and the number of sexual partners. Childhood disinhibition partly mediated the associations between the polygenic score and reproductive behaviours.

"Our findings suggest that age-at-first-birth is a useful measure, not just for researchers who are interested in the genetics of reproductive behaviour, but also for researchers who are interested in the genetics of disinhibition", explains Richmond-Rakerd. "Going forward, an important goal for future work is to identify the mechanisms that connect molecular-genetic discoveries for age-at-first-birth with disinhibitory behaviours".

"Our findings suggest that age-at-first-birth is a useful measure, not just for researchers who are interested in the genetics of reproductive behaviour, but also for researchers who are interested in the genetics of disinhibition."

Referring to:

Richmond-Rakerd, L.S., Moffitt, T.E., Arseneault, L., Belsky, D.W., Connor, J., Corcoran, D.L., Harrington, H., Houts, R.M., Poulton, R., Prinz, J.A., Ramrakha, S., Sugden, K., Wertz, J., Williams, B.S. & Caspi, A. (2020), A polygenic score for age-at-first-birth predicts disinhibition. *J. Child Psychol. Psychiatr.* doi: 10.1111/jcpp.13224.

References:

¹ Klein, J.D. et al. (2005). Adolescent pregnancy: Current trends and issues. *Paediatrics*. 116:281–286. doi: 10.1542/peds.2005-0999.

² Coyne, C.A. et al. (2012). Some (but not much) progress toward understanding teenage childbearing: a review of research from the past decade. *Adv. Child Dev. Behav.* 42:113–152. doi: 10.1016/b978-0-12-394388-0.00004-6.

³ Moffitt, T.E. et al. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proc. Natl. Acad. Sci. USA*. 108:2693–2698. doi: 10.1073/pnas.1010076108.

⁴ Barban, N. et al (2016). Genome-wide analysis identifies 12 loci influencing human reproductive behaviour. *Nat. Genet.* 49:1462–1475. doi: 10.1038/ng.3698

⁵ Moffitt, T.E. et al. (2002). Teen-aged mothers in contemporary Britain. *J. Child Psychol. Psychiatr.* 43: 727–742. doi: 10.1111/1469-7610.00082.

⁶ Poulton, R. et al. (2015), *The Dunedin Multidisciplinary Health and Development Study: Overview of the first 40 years, with an eye to the future. Social Psychiatry & Psychiatric Epidemiology*, 50:679–693.

Glossary:

Disinhibition: the inability to suppress inappropriate or unwanted behaviours. Affected individuals might show a lack of restraint or regard for social norms, or participate in unnecessarily risky or dangerous activities.

Polygenic risk score: a quantification of the cumulative effects of a number of genetic variants (which might individually have very small effects on susceptibility) on a particular trait with a genetic component.



Can we predict (complex) PTSD in young people in foster care?

By Dr. Jessica K Edwards

Many children and adolescents removed from the family home have experienced some form of maltreatment and/or trauma in their lifetime. These adverse, early life experiences put young people at risk of developing psychological difficulties.¹ Potential difficulties might include post-traumatic stress disorder (PTSD)² or the newly proposed, complex PTSD.^{3,4} However, there is little evidence to explain the mechanisms that might drive either PTSD or complex PTSD in this unique group of affected young people.

To address this knowledge gap, Rachel Hiller and colleagues conducted a prospective study of 120 adolescents (aged 10-18 years old) who were in out-of-home care, and their primary carers. The participants completed questionnaires regarding trauma history, PTSD symptoms and complex features. These complex features were collected using a 12-item Child Complex PTSD Checklist that assesses the three additional symptoms beyond PTSD: negative self-concept, interpersonal difficulties and affect dysregulation.⁴ The affected young people also gave self-reports on three cognitive processes: trauma-related maladaptive appraisals, memory quality and coping.

Hiller *et al.* found that the severity of maltreatment did not robustly predict PTSD or complex PTSD. The three cognitive processes, however, did moderately-to-strongly correlate with baseline and 12-month PTSD symptoms and complex features. It thus seems that the existing cognitive models of PTSD are applicable to young people who have been exposed to complex trauma – in this case young people in the care system. “The same processes that we see driving the maintenance of PTSD symptoms in other groups of young people — maladaptive cognitions, memory qualities, coping — are also applicable to young people in care”, explains Hiller. “Negative or maladaptive cognitions about the meaning of their maltreatment seem to be particularly important”.

Hiller suggests that these cognitive processes constitute important treatment targets for young people in care with PTSD or complex PTSD. “These processes are already targeted in our established first-line treatment for PTSD – trauma focused CBT”, says Hiller. “It is now crucial that young people in care with PTSD are offered evidence-based treatments”.

Referring to:

Hiller, R.M., Meiser-Stedman, R., Elliott, E., Banting, R. & Halligan, S.L. (2020), A longitudinal study of cognitive predictors of (complex) post-traumatic stress in young people in out-of-home care. *J. Child Psychol. Psychiatr.* doi: 10.1111/jcpp.13232.

References:

- ¹ Keyes, K.M. *et al.* (2012), Childhood maltreatment and the structure of common psychiatric disorders. *Br. J. Psychiatr.* 200: 107–115. doi: 10.1192/bjp.bp.111.093062.
- ² American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th edn)*. Arlington, VA: Author.
- ³ Brewin, C.R. *et al.* (2017). A review of current evidence regarding the ICD-11 proposals for diagnosing PTSD and Complex PTSD. *Clin. Psychol. Rev.* 58: 1-15. doi: 10.1016/j.cpr.2017.09.001.
- ⁴ World Health Organisation. (2018). *International statistical classification of diseases and related health problems (11th Revision)*. Available from: <https://icd.who.int/browse11/l-m/en>.

Glossary:

Complex post-traumatic stress disorder: a diagnostic category introduced by the World Health Organization’s classification system (ICD-11). Affected patients must meet the full criteria for PTSD, as well as exhibit (i) affect dysregulation, (ii) negative self-concept and (iii) disturbances in relationships.

DBT-A can enhance emotion regulation in ethnic minority youth

By Dr. Jessica K Edwards

Ethnic minority youth often experience environmental and culturally relevant stressors, putting them at risk of developing self-regulation difficulties and engaging in self-harm.¹ Now, a pilot study conducted by researchers in New York provides preliminary evidence that dialectical behaviour therapy for adolescents (DBT-A)² is associated with improved self-regulation skills in ethnic minority youth who self-harm.

Anna Yeo and colleagues found that upon completion of a 20-week DBT-A programme, 20 ethnic minority youth who displayed self-harming behaviours prior to treatment, had improved emotion regulation skills. They also found that baseline adaptive coping skills prior to treatment might predict post-treatment levels of DBT skills use. “Adolescents who exhibited low levels of adaptive coping skills prior to treatment, seemed to gain less DBT skills upon treatment completion”, explains Yeo. “Thus, given that the application of DBT skills is a critical therapeutic milestone, clinicians should assess adolescents’ baseline self-regulation skills prior to starting treatment and plan the focus and course of treatment accordingly”.

The researchers propose that future randomized control trials should examine the effect of DBT-A on vulnerable ethnic minority youth’s development of self-regulation. They also hope that more longitudinal research will explore how therapeutic changes in self-regulation might be linked to short-term and long-term clinical and functional outcomes in this population. “Improving self-regulation should be an essential intervention target when working with high-risk ethnic minority youth”, says Yeo. “Pending future research, our study highlights potential utilities of DBT-A in enhancing self-regulation — a transdiagnostic factor associated with self-harm”.

Referring to:

Yeo, A., German, M., Wheeler, L.A., Camacho, K., Hirsch, E. & Miller, A. (2020), *Self-harm and self-regulation in urban ethnic minority youth: a pilot application of dialectical behaviour therapy for adolescents*. *Child Adolesc. Ment. Health*. doi: 10.1111/camh.12374.

References:

¹ Cervantes, R.C. et al. (2014). *Self-harm among Hispanic adolescents: Investigating the role of culture-related stressors*. *J. Adolesc. Health*. 55:633–639. doi: 10.1016/j.jadohealth.2014.05.017.

² Mehlum, L. et al. (2014). *Dialectical behaviour therapy for adolescents with repeated suicidal and self-harming behaviour: A randomized trial*. *J. Am. Acad. Child Adolesc. Psychiatry*. 53:1082–1091. doi: 10.1016/j.jaac.2014.07.003.

Glossary:

Dialectical behaviour therapy for adolescents (DBT-A): a multi-component cognitive-behavioural treatment, in which the patient learns to manage difficult emotions by experiencing, recognizing and accepting them. DBT therapies use a balance of acceptance (accepting yourself as you are) and change (making positive changes in your life) techniques. Once the patient has learnt to accept and regulate emotions, they are then more able to change a harmful behaviour, such as self-harming. In general, DBT includes individual psychotherapy, family group skills training, telephone coaching and therapist team consultations.

Self-regulation: an individuals’ efforts to alter their own inner states, responses, or behaviours including thoughts, emotions, impulses, and task performances.

Transdiagnostic: the transdiagnostic paradigm is founded on the concept that many mental health disorders share common etiological and maintenance processes.



More research is needed into effective interventions for sensory symptoms

By Dr. Jessica K Edwards

Professor Alison Lane at the University of Newcastle, Australia, has compiled a practitioner review for the *Journal of Child Psychology and Psychiatry* on how to effectively manage functional difficulties associated with sensory symptoms in children and adolescents. Here, she defines “sensory symptoms” as observable behaviours that indicate an unusual or dysfunctional response to an every-day stimulus. An obvious example might include a child showing extreme distress to the sound of a vacuum cleaner being switched on unexpectedly. Such sensory symptoms can be quite common in both those with and without mental health problems.¹

Although some sensory symptoms might seem somewhat benign on the surface, many have suggested that they might in-fact cause substantial functional difficulties for some children.² “There is ample evidence in the literature supporting the association of these symptoms with functionally limiting behaviours such as anxiety, poor self-regulation, repetitive behaviours, feeding difficulties and parenting/caregiver burden”, explains Lane. “Funding for services for children impacted by sensory symptoms should thus be preserved”.

Professor Lane also identifies the commonly used sensory assessment tools. She explains that most tools measure sensory symptoms using proxy-report instruments; only a few assess the entire domain of sensory symptomatology using multiple methods. “Diagnosticians in child and adolescent mental health should, where possible, partner with appropriately qualified clinicians to evaluate the impact of sensory symptoms on functional difficulties”, says Lane. “Generally, occupational therapists are the best placed to provide this type of expert advice”. She singles out the Ayres Sensory Integration®, Qigong massage, the Alert Program®, and Social Stories as the best interventions available thus far to help manage sensory symptoms.

Going forward, Professor Lane recommends that more high quality research be conducted, to determine which interventions are most effective for which children with sensory symptoms. “This research will require targeted funding from national research council’s to teams of researchers with both the expertise in sensory symptoms and clinical trials”, she says. “Targeted funding towards the further development of rigorous and clinically feasible measurement tools is also needed to improve symptom identification and phenotyping”.

Referring to:

Lane, A. (2020), *Practitioner Review: Effective management of functional difficulties associated with sensory symptoms in children and adolescents*. *J. Child Psychol. Psychiatr.* doi: 10.1111/jcpp.13230.

References:

¹ Pfeiffer, B. et al. (2018). *State of the science of sensory integration research with children and youth*. *Am. J. Occup. Ther.* 72:7201170010p1-7201170010p4. doi: 10.5014/ajot.2018.721003.

² Critz, C. et al. (2015). *Sensory processing challenges in children*. *J. Nurse Pract.* 11:710–716. doi: 10.1016/j.nurpra.2015.04.016





Persistent peer victimization is associated with differential effects on cortisol production between boys and girls

By Dr. Jessica K Edwards

Peer victimization increases the risk of developing long-lasting mental health problems,¹ but the underlying mechanisms are unclear. Some have proposed that stress systems involving the hypothalamic-pituitary-adrenal (HPA) axis and cortisol production might be involved,² but the data are inconsistent. One reason for these discrepant findings might be because cortisol levels measured in saliva do not capture chronic changes in cortisol. To overcome this issue, Isabelle Ouellet-Morin and colleagues tested whether peer victimization is associated with cortisol concentrations by measuring this stress hormone in hair.

The researchers obtained hair samples from 556 boys and girls aged 17 years old, who had reported seven occurrences of peer victimization since 6 years-of-age. They found that boys exposed to moderate levels of peer victimization had lower hair cortisol concentrations (HCC) than boys who experienced low levels of peer victimization. Intriguingly, the association was not linear, as high levels of victimization were associated with higher HCC. In addition, this relationship was not identified in girls. However, changes in peer victimization were related to HCC for both boys and girls.

Ouellet-Morin et al. then went on to study whether peer victimization was also associated with depressive symptoms based on HCC. Here, only youth who had low HCC reported higher levels of depression, and this was in the absence of peer victimization.

Overall, it seems that the HPA axis can be dysregulated following peer victimization, but the nature of this dysregulation differs depending on sex and the severity of the adverse event. “The stress systems are triggered by novelty, unpredictability, uncontrollability and a sense of threat to the social ego and physical safety”, explains Ouellet-Morin. “New tools, such as mobile applications, might help victims to learn and experiment with new strategies to regain a sense of control, reappraise their experiences and reach out for help”. In-fact, the researchers have recently published an app named +Fort: Stronger than Bullying for Canadian youth.³ “Youth thrive for independence and are sensitive to how people perceive them”, says Ouellet-Morin. “This app might help them regain confidence in their own abilities to reduce victimization and reach out to someone for help”.

Going forward, the researchers urge that, in addition to community-based and school-based interventions, we persevere in trying to identify the mechanisms underlying vulnerability to mental health problems and understand why some youth are at greater risk than others when victimized.

“The stress systems are triggered by novelty, unpredictability, uncontrollability and a sense of threat to the social ego and physical safety.”

Referring to:

Ouellet-Morin, I., Cantave, C., Paquin, S., Geoffroy, M-C., Brendgen, M., Vitaro, F., Tremblay, R., Boivin, M., Lupien, S. & Côté, S. (2020), Associations between developmental trajectories of peer victimization, hair cortisol, and depressive symptoms: a longitudinal study. *J. Child Psychol. Psychiatr.* doi: 10.1111/jcpp.13228

References:

- ¹ Arsenault, L. (2018), Annual Research Review: The persistent and pervasive impact of being bullied in childhood and adolescence: implications for policy and practice. *J. Child Psychol. Psychiatr.* 59: 405–421. doi: 10.1111/jcpp.12841.
- ² Koss, K.J. et al. (2018), Annual Research Review: Early adversity, the hypothalamic-pituitary-adrenocortical axis, and child psychopathology. *J. Child Psychol. Psychiatr.* 59: 327–346. doi: 10.1111/jcpp.12784.
- ³ Ouellet-Morin, I. & Robitaille, M-P. +Fort, a mobile application for victims of bullying: development and initial steps toward validation. In: Campbell M & Bauman S, eds. *Reducing Cyberbullying in Schools*. USA: Elsevier; 2017:159-174.

See also:

<https://centreaxel.com/en/projects/stronger-than-bullying/>

Study note:

The researchers explain that their findings — namely the U-shaped curve to explain the association between peer victimization and hair cortisol concentrations according to sex — are consistent with the **stress inoculation model** described by Parker, K. et al. in 2004. (doi: 10.1001/archpsyc.61.9.933). By this model, just as a vaccine primes the immune system, exposing a child to moderately stressful events can promote stress resistance later in life.



Presenting as ‘in control’ may mask risk for alcohol misuse in adolescents with symptoms of BPD

By Dr. Jessica K Edwards

An association between borderline personality disorder (BPD) and alcohol and/or drug misuse is widely acknowledged in adults.¹ However, not much data exists to explain the factors underlying such an association in adolescents. This year, Johanna Folk and colleagues at George Mason University, USA, published their findings from a sample of 181 psychiatrically hospitalized adolescents who completed various self-assessments on their alcohol use and perceived coping skills. They found that adolescents who used alcohol to self-medicate were at high risk of alcohol problems in later life, regardless of BPD symptoms. Paradoxically, those with higher perceived levels of coping skills were at the highest risk: these individuals tended to drink more and have more alcohol problems.

“Adolescents who experience symptoms of BPD often exhibit a phenomenon called apparent competence — i.e. they present as being ‘in control’, but are actually experiencing extreme distress and lack sufficient coping skills”, explains Folk. “For this reason, and in light of our data, we encourage clinicians to collect collateral reports of adolescent’s coping abilities rather than relying solely on self-report”.

The researchers also propose that clinicians should not only assess if adolescents are using alcohol, but also determine why they are doing so. “Clinicians should focus on teaching alternative coping strategies when self-medication and/or rebellion are identified as reasons for drinking”, said Folk, “as these seem to be associated with greater alcohol misuse”.

Referring to:

Folk, J.B., Williams, C.A. & Esposito-Smythers, C. (2020), *Alcohol misuse among adolescents with BPD symptoms: exploring the moderating role of reasons for drinking and perceived coping skills in a clinical adolescent sample*. *Child Adolesc. Ment. Health*. doi: 10.1111/camh.12378.

References:

¹ Trull, T.J., et al. (2018). *Borderline personality disorder and substance use disorders: an updated review*. *Borderline Personal. Disord. Emot. Dysregul.* 5:15. doi: 10.1186/s40479-018-0093-9.

Glossary:

Borderline personality disorder:

According to the DSM-5, “bipolar personality disorder is diagnosed on the basis of (1) a pervasive pattern of instability of interpersonal relationships, self-image, and affects, and (2) marked impulsivity beginning by early adulthood and present in a variety of contexts”.



Variable sleep schedules might put preschoolers at risk of academic difficulties

By Dr. Jessica K Edwards

New data suggest that internalizing problems are associated with sleep variability and that cognitive ability is associated with sleep timing.

The study, conducted by researchers in the USA, involved 119 children who were longitudinally assessed from 30 months up to 54 months-of-age. Sleep was measured objectively using actigraphy and then various sleep parameters (including duration, timing, variability and activity) were correlated across behavioural adjustment, socioemotional, cognitive and academic domains.

Contrary to the researcher's predictions, few associations were found between child sleep and externalizing problems. In addition, no associations emerged between any of the sleep parameters and the children's socioemotional abilities. However, there was an association between sleep variability and internalizing problems: children with more variable sleep at 30 months had higher teacher-reported internalizing problems (including anxious, depressed and withdrawn behaviours) in preschool. Despite this, longitudinal changes in sleep from 30 to 54 months were not associated with internalizing or externalizing problems. The most robust association was between sleep and academic/cognitive abilities. Here, those with later sleep schedules in early childhood (30 months-of-age) had poorer cognitive and academic abilities at 54 months.

Overall, it seems that several traditionally examined indexes of sleep (including sleep duration) are not reliably associated with behavioural adjustment outcomes across domains. As such, the researchers explain that future studies should examine a comprehensive range of sleep variables, as using only one or two actigraphy indexes might not be sufficient to identify significant patterns. As this study included a relatively small and highly educated sample (86% primary caregivers had a college degree), replication is now necessary in a larger and more diverse sample. Nevertheless, the preliminary data suggest that interventions to address child sleep schedules and habits (i.e., sleep timing and variability), might help reduce internalizing problems and academic/cognitive difficulties in early childhood.

Referring to:

Hoyniak, C.P., Bates, J.E., McQuillan, M.E., Staples, A.D., Petersen, I.T., Rudasill, K.M. & Molfese, V.J. (2020), Sleep across early childhood: implications for internalizing and externalizing problems, socioemotional skills, and cognitive and academic abilities in preschool. J. Child Psychol. Psychiatr. doi: 10.1111/jcpp.13225.

Glossary:

Internalizing problems: individuals with internalizing problems typically attempt to conceal their maladaptive emotions and cognitions. This internalizing approach can manifest as depression, withdrawal, low self-esteem, anxiety and/or loneliness. Some affected individuals might also exhibit suicidal behaviours.

Externalizing problems: individuals with externalizing problems exhibit their maladaptive thoughts and emotions externally. Characteristic behaviours include impulsivity, and antisocial or aggressive behaviours. Adult manifestations of externalizing problems can include alcohol-related or substance-related disorders.



Who can best support young people who self-harm?

By Dr. Jessica K Edwards

A new study published in *Child and Adolescent Mental Health* has investigated what forms of support young people who self-harm find helpful. A team of researchers based in the UK recruited 126 adolescents (aged 11-21 years) who all had a history of self-harming within the past 6 months: 53 had experienced the care system and 73 had not. All participants completed self-interviews on their views about the support they had received to manage and promote their recovery from self-harm.

An interesting finding was that Child and Adolescent Mental Health Services was considered both the most helpful (n = 10) and the least helpful (n = 11) care service across all of the study participants. Informal forms of support (such as friends and pets) were consistently cited as the most helpful, while the social and emergency services were frequently cited as the least helpful.

“The results of this study highlight the importance of the people that surround the young person in everyday life — such as family, friends, partners and teachers — in terms of providing support with regard to their self-harm”, explains lead study author Josephine Holland. “The variety of responses from young people when asked what they found the most and least helpful shows how important it is to consider each young person individually, as what each young person finds helpful and unhelpful can be very different”.

Holland *et al.* conclude that although professional services clearly play a role, they are not the only means of helping young people who self-harm: we should also think holistically about how families, friends and schools can provide support.

Referring to:

Holland, J., Sayal, K., Berry, A., Sawyer, C., Majumder, P., Vostanis, P., Armstrong, M., Harroe, C., Clarke, D. & Townsend, E. (2020), *What do young people who self-harm find helpful? A comparative study of young people with and without experience of being looked after in care.* *Child Adolesc. Ment. Health.* doi: 10.1111/camh.12384

Glossary:

Self-harm: According to NICE, self-harm is “an expression of personal distress by an individual who hurts him or herself. Common methods of self-harm include cutting oneself and taking too many tablets or recreational drugs”.

“The results of this study highlight the importance of the people that surround the young person in everyday life...”



Would delaying the school day prevent anxiety in adolescents?

By Dr. Jessica K Edwards

Stressful life events (SLEs) are common during adolescence and can leave some individuals vulnerable to developing internalizing symptoms.^{1,2} Despite the recognition of this association, little is known about the underlying mechanisms. A new study published in the *Journal of Child Psychology and Psychiatry* has investigated whether sleep duration and regularity might link SLEs to anxiety and depression symptoms. “Due to a series of puberty-driven changes in homeostatic and circadian systems, as well as socio-cultural factors that are part of typical development, adolescents tend to start going to bed later than they did as children”, explains lead author Constanza Vidal Bustamante. “However, their wake-up time remains fixed due to early school start times, leaving most adolescents sleep deprived”.

Much research has investigated adolescent stress, sleep, and anxiety and depression symptoms via self-report over short periods. This approach can be prone to recall biases³ and fails to capture changes within individuals over time.⁴ To overcome this issue, the researchers followed a group of 30 girls (aged 15-17 years old) for a full year. They used Fitbits to track their sleep passively and continuously throughout the study period. The participants also completed a series of evaluations assessing SLEs and anxiety and depression symptoms once per month.

Vidal Bustamante *et al.* found that the participants slept less than the minimum 8 hours of sleep recommended for their age group. Although they tended to sleep longer on weekends, this was still not enough to recover the deficit. “Even if they slept longer on weekends relative to weekdays, an inconsistency in sleep duration was associated with heightened symptoms of anxiety, suggesting that changing how long they sleep from time to time is not good for adolescents’ mental health”, explains Vidal Bustamante. “Delaying school start times might help adolescents get longer and more consistent amounts of sleep, and potentially help mitigate some risk for stress-related psychopathology in adolescence”.

The researchers also noted substantial variability in SLEs, sleep behaviour, and anxiety and depression symptoms within the participants over time. “This finding underscores the need for more intensive longitudinal studies that are able to capture these changes in adolescence, and that focus on assessing deviations in sleep behaviour and symptoms of psychopathology relative to what is typical for each individual”, explains Vidal Bustamante. “We believe that such an approach overcomes the limitation of using group averages that blur out potentially important individual differences, and allows for more personalized assessments of mental and physical health”.

“Delaying school start times might help adolescents get longer and more consistent amounts of sleep, and potentially help mitigate some risk for stress-related psychopathology in adolescence.”

Referring to:

Vidal Bustamante, C.M., Rodman, A.M., Dennison, M.J., Flournoy, J.C., Mair, P. & McLaughlin, K.A. (2020), *Within-person fluctuations in stressful life events, sleep, and anxiety and depression symptoms during adolescence: a multiwave prospective study*. *J. Child Psychol. Psychiatr.* doi: 10.1111/jcpp.13234.

References:

- ¹ Grant, K.E. *et al.* (2003), *Stressors and child and adolescent psychopathology: Moving from markers to mechanisms of risk*. *Psychol. Bull.* 129: 447–46. doi: 10.1037/0033-2909.129.3.447.
- ² Hammen, C. (2005), *Stress and depression*. *Annu. Rev. Clin. Psychol.* 1: 293–319. doi: 10.1146/annurev.clinpsy.1.102803.143938.
- ³ Biddle, D.J. *et al.* (2015), *Accuracy of self-reported sleep parameters compared with actigraphy in young people with mental ill-health*. *Sleep Health.* 1: 214–220. doi: 10.1016/j.sleh.2015.07.006.
- ⁴ Becker, S.P. *et al.* (2017), *Intraindividual variability of sleep/wake patterns in relation to child and adolescent functioning: A systematic review*. *Sleep Med. Rev.* 34: 94–121. doi: 10.1016/j.smr.2016.07.004.

