



The Association
for Child and Adolescent
Mental Health

THE BRIDGE

September 2019
Special Edition

Suicide and Self-harm Edition

Plus

Research
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Editorial

The Bridge Editor, Dr Juliette Kennedy

Welcome to this important issue of The Bridge that focuses on suicide and self-harm.

The National Confidential Enquiry into Suicide and Safety in Mental Health Annual Report (2018) (www.hqip.org.uk/resource/national-confidential-inquiry-into-suicide-and-safety-annual-report-2018/) highlighted that suicide in the under 20's is rising generally and that the number of suicides rises towards late teens (p.38).

Common antecedents reported included family problems, bullying, physical health conditions, self-harm, exam stresses, and relationship problems (p.38). 25% had experienced bereavement (9% of which was by suicide) (p.38). 23% had engaged in suicide-related internet use (p.38). Excessive use of drugs and alcohol was common (42%) (p.39). Of those who completed suicide, 60% had been in contact with services for children or young people at some time and in 41% of cases, this had been a contact within the last 3 months (p.40). Thus, in some of these cases Children's and Young People's services may have an opportunity to intervene. Ongoing research seeks to establish what we can do that might be effective in preventing suicide, and what risk factors might it be helpful for us to understand, when undertaking risk formulations and when developing risk management plans.

The RCPsych and Health Education England (HEE) published "the Self-Harm and Suicide Prevention (SHSP) Competence Framework" in October 2018 (www.ucl.ac.uk/pals/research/clinical-educational-and-health-psychology/research-groups/core/competence-frameworks/self). One of these is for Children and Young People's services. This framework considers what skills, knowledge, and behaviours, professionals working with children and young people need to have to be able to effectively manage risk. It is acknowledged in this report that the evidence suggests our ability to predict risk outcomes accurately is limited (p.14). Therefore, it suggests the emphasis should be on developing a collaborative, person-centred, assessment of risk, alongside an understanding of the young person's needs and strengths (p.14) and "to attempt to engage young people (and their carers) in a personally

meaningful conversation that helps them consider their difficulties and the context of these and the resources that are available to keep them safe" (p.14).

A competent workforce needs to work to the evidence base. There is much research still needed to understand what this evidence base is and what therefore might help a suicidal young person.

This edition of the Bridge follows the JCPP October Special Issue 2019 – on Suicide and Self-harm: Pathways for Minimizing Suicide & Premature Deaths and Maximizing Hope and Wellbeing.

10 research highlights are summarised here, to add to the current evidence base:

Predisposing factors such as childhood maltreatment (Zelazny, J. et al.), and relative stress (Miller et al.) are explored.

Protective factors are highlighted such as school and social connectedness (King et al.) and the importance of strengthening positive social bonds (Wyman et al.)

Response to treatment is considered; Adrian et al. explore who might respond best to DBT and Mehlum et al. report that DBT may improve feelings of hopelessness. The efficacy of family focussed CBT is considered (Esposito-Smythers et al.),

Community interventions such as long-term youth suicide prevention programs (Godoy Garraza et al.) are considered. Barzilay et al. look at perceived interpersonal difficulties with parents as a primary mediator of suicidal ideation and suggest that interventions with high parental involvement may be most effective.

Important negatives are also reported; Russell et al. report their finding that inflammation does not mediate an adverse childhood experience – self-harm risk association.

This edition is also available in PDF form, please do download it from the ACAMH website and share it with colleagues.



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.



DBT is effective for youth with high levels of emotion dysregulation

By Jessica K. Edwards

In 2019, Molly Adrian and colleagues examined the predictors and moderators of treatment outcomes for suicidal adolescents who participated in a randomized controlled trial evaluating Dialectical Behaviour Therapy (DBT) versus Individual/Group Supportive Therapy (IGST). The study included 173 adolescents in an intent-to-treat sample, who were randomized to receive 6 months of either treatment. The primary outcomes were suicide attempts and non-suicidal self-injury at baseline, mid-treatment, and at the end of the treatment and various cohort demographics, severity markers, parental psychopathologies, and psychosocial variables were considered as potential moderators or predictors of these outcomes.

Aligning with the DBT theory of self-harm, Adrian et al. found that adolescents with higher levels of emotion dysregulation responded better to DBT than IGST. Interestingly, DBT also produced a better rate of improvement for adolescents who identified as Latino/a. Contrary to the researcher's hypotheses, adolescents who presented with a more severe history of self-harm and co-morbidities did not seem to differentially benefit from DBT compared to IGST. Going forward, the researchers hope that their findings will inform salient treatment targets and guide treatment planning. Specifically, triaging youth with high levels of emotional dysregulation, and those who have parents with psychopathology, to DBT programs, might maximize positive treatment outcomes.

Adrian, M. et al. (2019), Predictors and moderators of recurring self-harm in adolescents participating in a comparative treatment trial of psychological interventions. J. Child Psychol. Psychiatr. doi:10.1111/jcpp.13099

Glossary

Dialectical Behaviour Therapy (DBT): 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.

Individual/Group Supportive Therapy (IGST): IGST emphasizes acceptance, validation, and feelings of connectedness and belonging. Treatment typically comprises individual and adolescent support group-based therapy sessions, as-needed parent sessions, and weekly therapist team consultations.

Social connectedness is a protective factor against short-term suicide attempts (post discharge) in school children

By Jessica K. Edwards

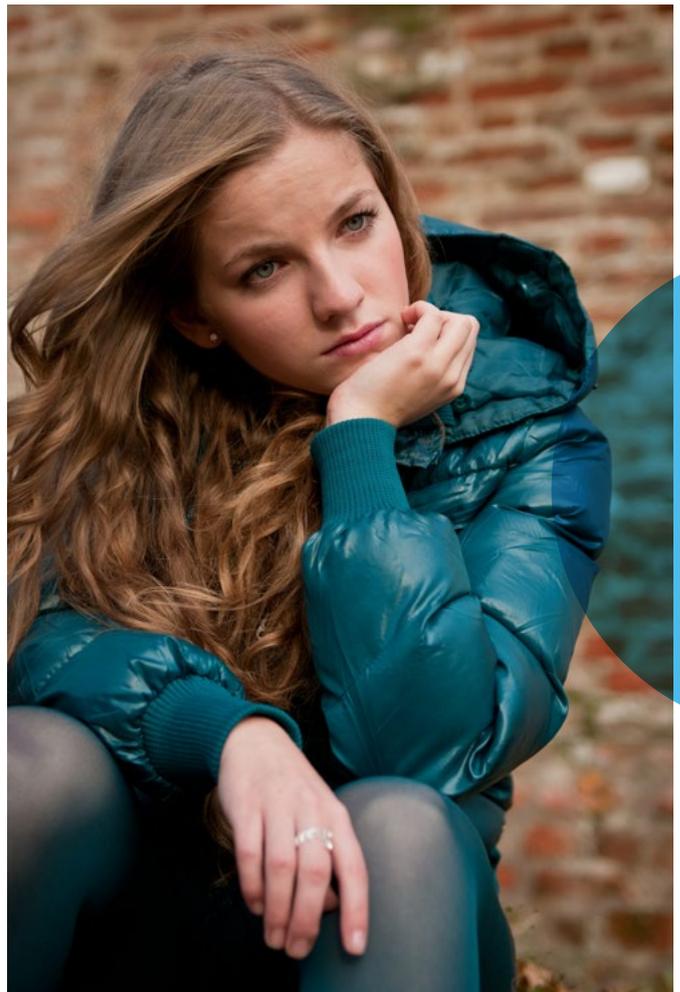
Researchers in the USA have performed a multi-site, prospective analysis of >2,000 adolescents aged 12-17 years to try to determine the short-term predictors of suicide attempts within 3-months of an emergency department visit. The study population was enriched to include a high proportion of adolescents at risk for suicide attempts. At baseline, >50% of the study's follow-up sample reported a lifetime history of suicidal ideation (SI) and ~40% reported a lifetime history of suicidal behaviour: 4.9% of the follow-up cohort made a suicide attempt between enrolment and 3-month follow-up. Multivariate analyses identified numerous predictors of short-term suicide attempts in this sample, as well as in four critically important subgroups defined by sex and the presence, or absence, of recent suicidal thoughts. Notably, school or social connectedness emerged as a key protective factor for the total follow-up sample and several subgroups of adolescents, including adolescents who did not report suicidal thoughts at baseline, and adolescent females. This key predictor was not significant for adolescent males.

Consistent with these findings, a growing body of research¹ suggests that higher levels of school connectedness are associated with a lower prevalence of suicidal behaviours in general school samples, high risk adolescents, and sexual minority adolescents.² The researchers propose, therefore, that social and school connectedness might be an important target for suicide attempt risk assessment and preventive intervention.

King, C. et al. (2019), Predicting 3-month risk for adolescent suicide attempts among paediatric emergency department patients. J. Child Psychol. Psychiatr. doi:10.1111/jcpp.13087

References

- ¹Gunn, J. F., Goldstein, S. E. and Gager, C. T. (2018). A longitudinal examination of social connectedness and suicidal thoughts and behaviours among adolescents. *Child Adolesc. Ment. Health*, 23(4), 341-350. doi:10.1111/camh.12281
- ²Marraccini, M. E. and Brier, Z. M. (2017). School connectedness and suicidal thoughts and behaviours: systematic meta-analysis. *Sch. Psychol. Q.*, 32(1), 5-21. doi: 10.1037/spq0000192.



Family-focused CBT is not superior to enhanced treatment-as-usual in reducing suicide attempts

By Jessica K. Edwards



In 2011, Esposito-Smythers et al. reported that integrated outpatient cognitive-behavioural therapy (I-CBT) significantly reduced substance use, suicidal behaviours, and the rate of health service use compared with enhanced treatment-as-usual (E-TAU) in adolescents with co-occurring alcohol or drug use disorder and suicidality.¹ In a recent follow-up study, the researchers assessed whether a modified version of I-CBT, known as family-focused CBT (F-CBT), can also reduce the rate of suicide attempts (SA), depression, suicidal ideation (SI), or non-suicidal self injury (NSSI) in a cohort of depressed, suicidal adolescents recruited from an inpatient psychiatric hospitalization program. Although adolescents across all trial arms achieved reductions in the rates of SA, depression, SI, and NSSI over an 18-month period, the researchers found no evidence for an increased efficacy for F-CBT over E-TAU.

The researchers propose that modifications made to the F-CBT protocol, to account for differences in the sample composition, might have had a role in these differential outcomes. For example, the potential efficacy of the parent component of the intervention might have been reduced as a result of limiting the number of parent “training” sessions to accommodate for more parent “self-care” sessions. Other factors that the researchers propose might be responsible for these divergent findings include differences in the levels of substance use (22% vs. 100%), conduct disorder (22% vs. 35%) and generalized anxiety disorders (40% vs. 16%) in the F-CBT versus I-CBT studies. The researchers suggest that increasing the frequency of F-CBT sessions at the start of treatment might, therefore, be necessary to see an effect in this population.

Esposito-Smythers, C. et al. (2019), Family-focused cognitive-behavioural treatment for depressed adolescents in suicidal crisis with co-occurring risk factors: a randomized trial. J. Child Psychol. Psychiatr. doi:10.1111/jcpp.13095

References

¹Esposito-Smythers, C., Spirito, A., Kahler, C. W., Hunt, J., & Monti, P. (2011). Treatment of co-occurring substance abuse and suicidality among adolescents: A randomized trial. *Journal of Consulting and Clinical Psychology, 79*, 728–739

Glossary

Integrated outpatient cognitive behavioural therapy (I-CBT): I-CBT protocols integrate CBT techniques to remediate maladaptive cognitions and behaviours. In the 2011 study by Esposito-Smythers, et al.,¹ I-CBT included various cognitive-behavioural individual adolescent (e.g., problem-solving, refusal skills), family (e.g., communication, behavioural contracting) and parent training (e.g., monitoring, emotion regulation) sessions. Motivational interviewing sessions for adolescents to improve readiness for treatment and for parents to facilitate treatment engagement were also provided. The sessions could be repeated and practiced throughout the protocol, and, case-management calls were made as needed outside of sessions.

Family-focused outpatient cognitive behavioural therapy (F-CBT): The F-CBT protocol used by Esposito-Smythers, et al. in 2019 was based on I-CBT,¹ with modifications to better accommodate the broader sample of suicidal youth recruited to the study. Added sessions included those addressing emotion regulation (distress tolerance), physical health (healthy lifestyle), trauma (trauma narrative) and anxiety (exposure). The scope of the sessions was also broadened to be relevant to any high-risk behaviour. Parental self-care sessions were also added, in which therapists taught parents seven skills that in I-CBT were only taught to adolescents. Finally, F-CBT included a parent training emotion coaching session to improve parent–child interactions.



Long-term youth suicide prevention programs can have sustained effects

By Jessica K. Edwards

The Garrett Lee Smith (GLS) Memorial Suicide Prevention Act was passed in 2004 to address the public health issue of suicide in the USA. Since then, numerous programs have been funded via the GLS program to provide comprehensive, community-based suicide prevention programs to adolescents and emerging adults aged 10-24 years. While GLS programs seem to reduce population suicide attempt (SA) rates in the short term,¹ the long-term effects are unclear. To address this question, Lucas Godoy Garraza and colleagues examined data from the national outcomes evaluation of the GLS youth suicide prevention program from sites funded between 2006 and 2015 to look for evidence for long-lasting effects of GLS programs.

The researchers found that exposure to GLS activities spanning just 1 year conferred a significant decrease in youth suicide mortality rates up to 2 years after the GLS activities ended. When comparing communities exposed during a single year with those exposed over four consecutive years, the total difference in youth suicide rate compared to the expected difference in the absence of the program was 3.32 fewer deaths per 100,000 youth in 4 years (95% CI, 1.62–5.03) and 13.3 fewer deaths per 100,000 youth in 7 years (95% CI, 6.49–20.11). The researchers thus conclude that GLS youth suicide prevention programs can have sustained, life-saving impact in communities when comprehensively and persistently implemented.

Garraza, L. G. et al. (2019), *Long-term impact of the Garrett Lee Smith Youth Suicide Prevention Program on youth suicide mortality, 2006-2015*. *J. Child Psychol. Psychiatr.* doi:10.1111/jcpp.13058

References

¹Walrath, C., Godoy Garraza, L., Reid, H., Goldston, D.B. and McKeon, R. (2015). The impact of the Garrett Lee Smith (GLS) Suicide Prevention Program on suicide mortality. *Am. J. Public Health*, 105, 986–993. doi: 10.2105/AJPH.2014.302496.

Glossary

Garrett Lee Smith (GLS) programs: according to the Substance Abuse and Mental Health Services Administration (SAMHSA), funding for GLS (state and tribal) programs is available to those who aim to implement “youth suicide prevention and early intervention strategies in schools, educational institutions, juvenile justice systems, substance use programs, mental health programs, foster care systems, and other child and youth-serving organizations”. The aim is to “increase the number of youth-serving organizations who are able to identify and work with youth at risk of suicide; increase the capacity of clinical service providers to assess, manage, and treat youth at risk of suicide; and improve the continuity of care and follow-up of youth identified to be at risk for suicide, including those who have been discharged from emergency department and inpatient psychiatric units”. GLS grantees work with program partners for technical support and assistance on local and national evaluation-related issues, including the Center for Mental Health Services (CMHS), SAMHSA and the U.S. Department of Health and Human Services (HHS).



Childhood maltreatment increases suicide risk despite strong neuropsychological functioning

By Jessica K. Edwards

A cross-sectional and prospective study recently examined the independent effects of childhood maltreatment, neuropsychological functioning, and psychopathology, and their potential interactions with suicidal behaviour. Zelazny and colleagues recruited 382 offspring of depressed parents and conducted neuropsychological assessments at an average age of 18.5 years. Mood (43%), anxiety (37%) and alcohol and substance use (21%) disorders, as well as childhood maltreatment (44%) were prevalent in the cohort. From their analyses, childhood maltreatment consistently predicted a significantly increased risk of suicidal behaviours in both cross-sectional and prospective models. This risk persisted even in the presence of strong neuropsychological functioning. Conversely, language fluency was associated with protection against suicidal behaviour. Overall, a lifetime history of a mood disorder was the strongest predictor of suicidal behaviour: this effect was attenuated by high levels of working memory (OR = 0.21; 95% CI = 0.09,

0.45; $p < .001$) and executive function (OR = 0.15; 95% CI = 0.05, 0.43; $p < .001$). Better attentional performance was also protective against suicidal behaviour, but only among those with mood disorders without evidence of child maltreatment.

The researchers conclude that childhood maltreatment has long-lasting negative effects that might overwhelm the positive influence of any neuropsychological assets, on the risk for suicidal behaviour. They recommend that future studies should investigate whether assessments of executive function and working memory might aid clinicians in determining the most effective treatment for suicidal patients and whether improving executive function and working memory might lead to better treatment outcomes and decrease the risk of suicidal behaviour.

Zelazny, J. et al. (2019), *Maltreatment, neuropsychological function and suicidal behaviour*. *J. Child Psychol. Psychiatr.* doi:10.1111/jcpp.13096

DBT-A reduces self-harming behaviours by improving feelings of hopelessness

By Jessica K. Edwards

In 2014, a randomized controlled trial conducted by Lars Mehlum and colleagues showed that a comparatively brief course of Dialectical Behaviour Therapy adapted for adolescents (DBT-A) is superior to enhanced usual care (EUC) in reducing self-harming behaviour, suicidal ideation, and depressive symptoms,¹ and that DBT-A remains superior in reducing self-harming behaviours up to 1 year after treatment.² Now, Lars Mehlum and colleagues have completed a prospective 3-year follow-up study, which showed that DBT-A has enduring effects in terms of reducing self-harm frequency in adolescents compared to EUC. A substantial proportion of the effect of DBT-A on self-harm over the long-term was mediated by a reduction in the participants' experience of hopelessness during the trial treatment. The researchers also found that receiving >3 months follow-up treatment in the first year after completion of the trial treatment was associated with further enhanced outcomes in patients who had received DBT-A.

How a reduction in the levels of hopelessness during DBT-A might mediate a long-term reduction in self-harming behaviours is unclear. Mehlum and colleagues highlight, however, that DBT-A includes several interventions to address and treat hopelessness and promote dialectical thinking to help patients change their polarized perceptions of self and others. Going forward, the researchers propose that therapeutic interventions aiming to reduce self-harm in adolescents should focus on hopelessness and other cognitive or emotional factors that might otherwise prevent recovery.

Mehlum, L. (2019), Long term effectiveness of dialectical behaviour therapy versus enhanced usual care for adolescents with self-harming and suicidal behaviour. J. Child Psychol. Psychiatr. doi:10.1111/jcpp.13077

References

¹Mehlum, L., Tormoen, A.J., Ramberg, M., Haga, E., Diep, L.M., Laberg, S. and Groholt, B. (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.

²Mehlum, L., Ramberg, M., Tormoen, A.J., Haga, E., Diep, L.M., Stanley, B.H. and Groholt, B. (2016). Dialectical behaviour therapy compared with enhanced usual care for adolescents with repeated suicidal and self-harming behaviour: Outcomes over a one-year follow-up. *J. Am. Acad. Child Adolesc. Psychiatry*, 55, 295–300. doi: 10.1016/j.jaac.2016.01.005.

Glossary

Dialectical Behaviour Therapy (DBT): 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.



Individual changes in stress-level predict non-suicidal self-injury

By Jessica K. Edwards

The rate of non-suicidal self-injury (NSSI)¹ rises sharply during adolescence, particularly in females,² which may be due in part to sex differences in stress and coping processes.³ Such an association between life stress levels and NSSI, however, is debated: while theoretical models have suggested a link between the two, meta-analyses have shown that life stress inconsistently predicts NSSI. In their latest study, Adam Miller and colleagues propose that these inconsistencies might be due to a reliance on “between-person” models⁴ that compare individuals with high stress levels to those with low stress levels. The researchers thus established a new model — a within-person, stress-threshold model of NSSI — to determine whether life stress is a reliable clinical marker of NSSI risk. By this model, youth are at risk for engaging in NSSI during times when they experience increased stress relative to their own average stress level.

In adolescent and emerging adult females, Miller et al. found that the mean levels of monthly or daily stress were not associated with increased NSSI risk. Instead, they found that the participants were more likely to think about and engage in NSSI when they reported higher-than-usual daily perceived stress relative to their own average perceived stress. These data support that between-person differences in stress are not robustly associated with NSSI risk. Rather, young people are most likely to engage in NSSI when stress increases above their own typical levels. The researchers propose that knowledge about when an adolescent or emerging adult exceeds their own typical stress level (within-person) might be more useful for informing clinical care. Consequently, clinicians could benefit from transitioning from assessing stress during an intake assessment (where risk is compared relative to the population) to ongoing stress monitoring to capture individual within-person stress fluctuations.

Miller, A. B. et al. (2019), *Does higher-than-usual stress predict nonsuicidal self-injury? Evidence from two prospective studies in adolescent and emerging adult females.* *J. Child Psychol. Psychiatr.* doi:10.1111/jcpp.13072

References

¹International Society for the Study of Self-injury. (2018, May). What is self-injury? Retrieved from: <https://itriples.org/about-self-injury/what-is-self-injury>.

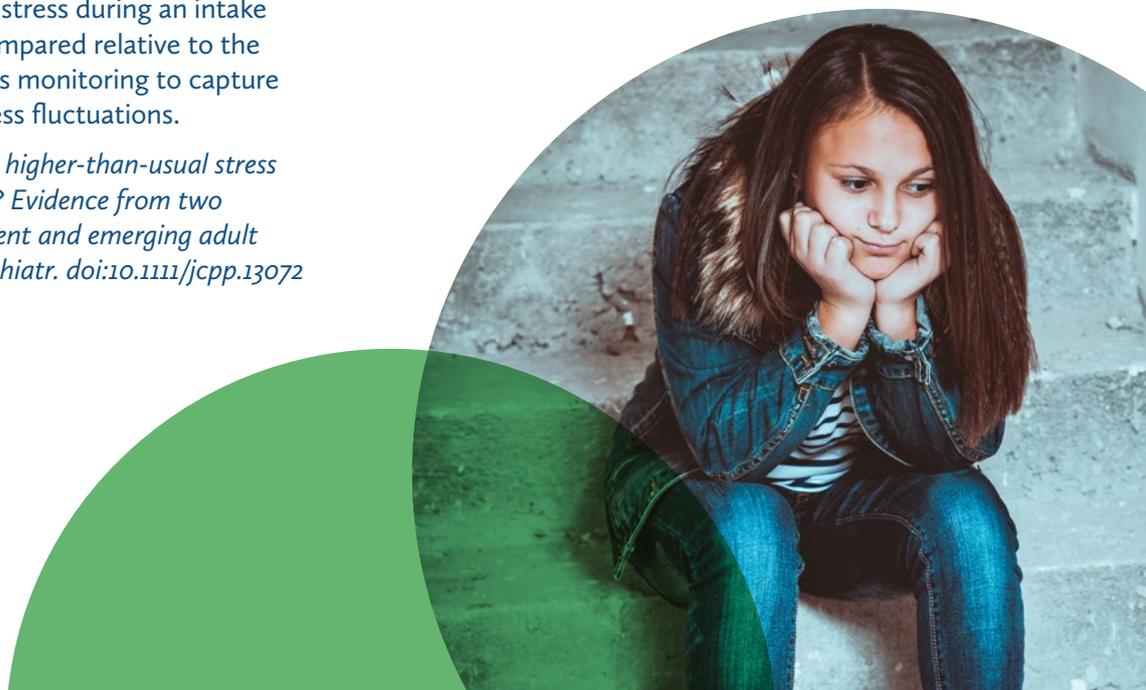
²Fox, K.R., Franklin, J.C., Ribeiro, J.D., Kleiman, E.M., Bentley, K.H. and Nock, M.K. (2015). Meta-analysis of risk factors for nonsuicidal self-injury. *Clin. Psychol. Rev.*, 42, 156–167. doi: 10.1016/j.cpr.2015.09.002.

³Rose, A.J. and Rudolph, K.D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioural development of girls and boys. *Psychol. Bull.* 132, 98–131. doi: 10.1037/0033-2909.132.1.98.

⁴Liu, R.T., Cheek, S.M. and Nestor, B.A. (2016). Non-suicidal self-injury and life stress: A systematic meta-analysis and theoretical elaboration. *Clin. Psychol. Rev.*, 47, 1–14. doi: 10.1016/j.cpr.2016.05.005.

Glossary

Non-suicidal self-injury (NSSI): Defined by the International Society for the Study of Self-Injury¹ as deliberate, self-inflicted damage of body tissue without suicidal intent and for purposes not socially or culturally sanctioned.





Inflammation does not mediate an adverse childhood experience – self-harm risk association

By Jessica K. Edwards

Inflammation has been proposed to be a candidate mechanism contributing to the association between exposure to adverse childhood experiences (ACEs) and the risk of self-harm.¹⁻² In the first study of its kind, researchers in the UK have now directly studied whether inflammatory processes do indeed mediate this association. Abigail Russell and colleagues used data from >4,000 adolescents recruited to the UK population-based birth cohort study, Avon Longitudinal Study of Parents and Children (ALSPAC).³ They modelled the number of ACEs experienced between ages 0 and 9 years, the levels of interleukin-6 (IL-6) and c-reactive protein (CRP) (key markers of inflammation) at age 9.5 years and the number of self-harm reports at age 16 years. They confirmed that ACEs between 0-9 years were associated with an increased risk of adolescent self-harm. Furthermore, each additional ACE conferred an additional 11% risk of self-harm at

16 years-of-age. They found no evidence, however, to support that their measures of inflammation mediated this ACE–self-harm association in their sample. The researchers propose many reasons for their result. For example, they suggest that inflammation might impact on self-harm via an altered inflammatory response to immune system challenges. Alternatively, previous studies might have detected inflammatory consequences of self-harm, rather than have detected inflammation as an antecedent to self-harm. Based on their data thus far, however, the researchers do not consider that inflammatory markers are a useful biomarker of self-harm risk in those exposed to ACEs.

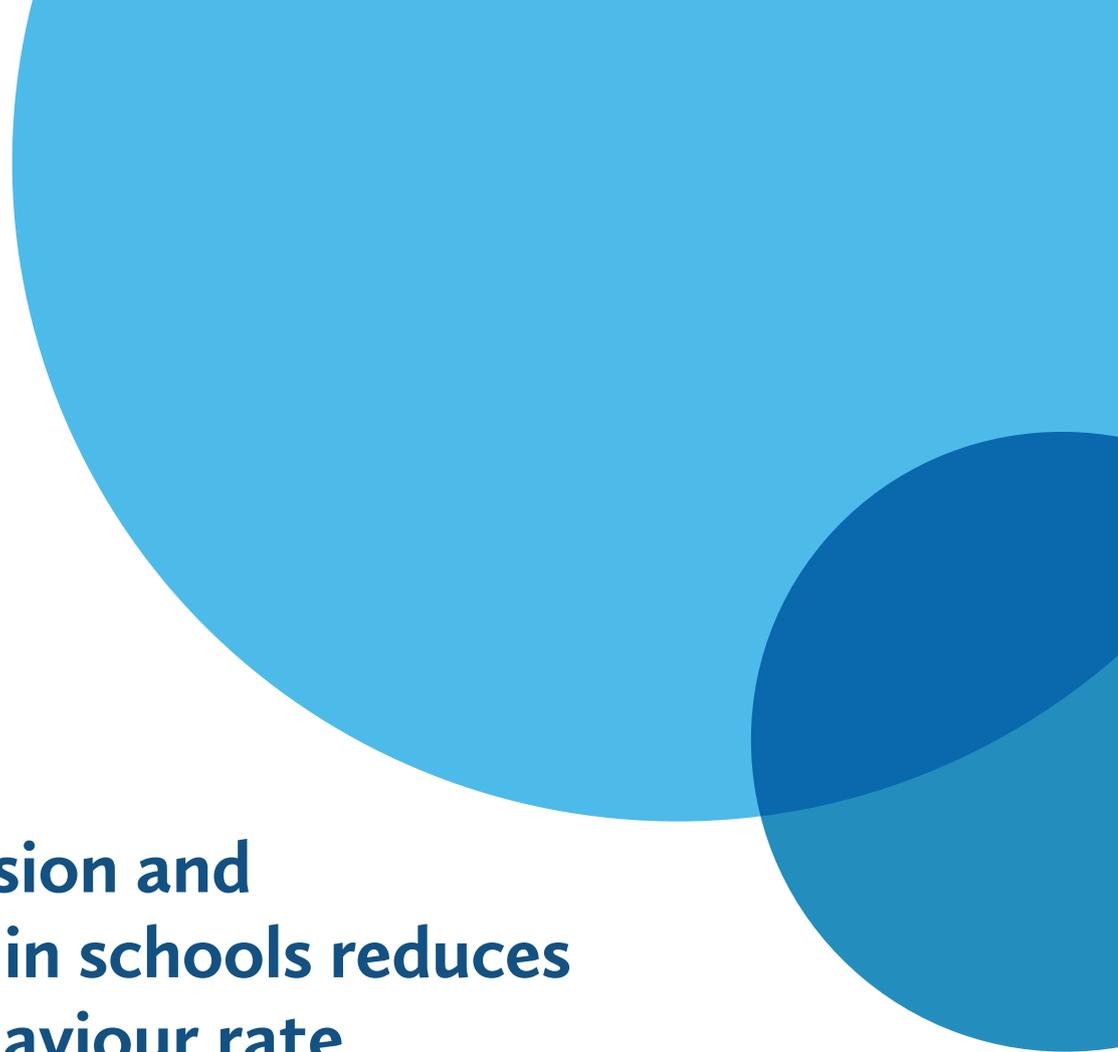
Russell, A. et al. (2019), Pathways between early life adversity and adolescent self-harm: the mediating role of inflammation in the Avon Longitudinal Study of Parents and Children (ALSPAC). J. Child Psychol. Psychiatr. doi:10.1111/jcpp.13100

References

¹Baumeister, D., Akhtar, R., Ciufolini, S., Pariante, C. M. and Mondelli, V. (2016). Childhood trauma and adulthood inflammation: a meta-analysis of peripheral C-reactive protein, interleukin-6 and tumour necrosis factor- α . *Mol. Psychiatry*, 21: 642-649. doi: 10.1038/mp.2015.67.

²Coelho, R., Viola, T., Walss-Bass, C., Brietzke, E. and Grassi-Oliveira, R. (2014). Childhood maltreatment and inflammatory markers: a systematic review. *Acta Psychiatr. Scand.*, 129: 180-192. doi: 10.1111/acps.12217.

³Boyd, A., Golding, J., Macleod, J., Lawlor, D. A., Fraser, A., Henderson, J., et al. (2013). Cohort profile: the 'children of the 90s'—the index offspring of the Avon Longitudinal Study of Parents and Children. *Int. J. Epidemiol.*, 42: 111-127. doi: 10.1093/ije/dyso64.



Social cohesion and integration in schools reduces suicidal behaviour rate

By Jessica K. Edwards

Emerging data suggest that strengthening positive social bonds and improving social integration might reduce suicidal behaviours in youth¹ to date; little research has studied the effect of social integration, on suicide behaviours, with reference to a young person's social network structure — namely, an individual's position within their network and the patterns of relationships among members of the network. Researchers in the USA have now addressed this knowledge gap by examining whether structural characteristics of school networks (including both peer and adult connections) can predict school rates of suicide ideation (SI) and/or suicide attempts (SA). The study included >10,000 students from 38 US high schools who answered questions about suicidal thoughts and behaviours (STB). The data showed that schools with friendship networks reflecting greater integration and cohesion had lower rates of SI and SA. Specifically, students with more friendship ties, who were part of larger, interconnected friendship groups, were less likely to report SI and SA. These indices

aggregated at the school population level and predicted lower school rates of suicidal thoughts and behaviours. The researchers also found evidence of a dose-response relationship, suggesting that the impact of low integration and cohesion occurs along a continuum, increasing vulnerability for SI and, at higher levels, for SA. Finally, they found that student isolation from adults, if youth–adult relationships were concentrated in fewer students, and higher popularity of suicidal youth, were associated with higher SA rates. Going forward, the researchers believe that network-informed suicide prevention approaches could be developed and tested in schools and other education settings and that protective peer and youth–adult bonds, group cohesion, and the social influence of healthy, coping youth could be maximised.

Wyman, P. et al. (2019), *Peer-adult network structure and suicide attempts in 38 high schools: implications for network informed suicide prevention*. *J. Child Psychol. Psychiatr.* doi:10.1111/jcpp.13102

References

¹King, C. A. and Merchant, C. R. (2008). Social and interpersonal factors relating to adolescent suicidality: a review of the literature. *Arch. Suicide Res.* 12, 181-196. doi: 10.1080/13811110802101203



Low parental belongingness increases suicidal ideation risk

By Jessica K. Edwards

The Saving and Empowering Young Lives in Europe (SEYLE) randomized controlled trial (RCT) was originally established to evaluate the efficacy of three school-based interventions on preventing suicide in 11,000 adolescents.¹ The three interventions included the Youth Aware of Mental Health Program (YAM);² Question, Persuade, and Refer (QPR);³ and Professional Screening of at-risk pupils (ProfScreen).⁴ At 12-months follow-up, YAM was found to significantly reduce the number of new cases of suicide attempt (SA) and severe suicide ideation (SI) compared to controls who received educational posters on mental health resources.⁵ Now, Shira Barzilay and colleagues have taken the SEYLE study further by, (i) testing two psychological models of suicide within the context of this RCT — the interpersonal theory of suicide (IPTS)⁶ and a two-pathway model⁷ — and (ii) evaluating the moderating effects of interventions on the pathways to SI and SA.

Barzilay et al. found that IPTS showed a better fit than the two-pathway model, whereby low parental belongingness, but not peer belongingness or

burdensomeness, predicted a greater likelihood of SI. In terms of the moderating effects of the SEYLE interventions, YAM, QPR, and ProfScreen all reduced the association between repeated SA (vs. no SA) and the interaction between SI and self-injury at baseline compared to the control intervention. The YAM intervention also diminished the direct association between risk behaviours at baseline and the likelihood of repeated SA (vs. no SA). The researchers thus conclude that universal suicide prevention can effectively attenuate the risk of SA by impeding the different facets of self-harm from leading to SA. Because perceived interpersonal difficulties with parents primarily mediated SI, they suggest that interventions with high parental involvement might be most effective.

Barzilay, S. et al. (2019), A longitudinal examination of the interpersonal theory of suicide and effects of school-based suicide prevention interventions in a multinational study of adolescents. J. Child Psychol. Psychiatr. doi:10.1111/jcpp.13119

References

- ¹Wasserman, D., Carli, V., Wasserman, C., Apter, A., Balazs, J., Bobes, J., et al. (2010), Saving and empowering young lives in Europe (SEYLE): a randomized controlled trial. *BMC Public Health*, 10: 192. doi: 10.1186/1471-2458-10-192.
- ²Wasserman, C., Postuvan, V., Herta, D., Iosue, M., Värnik, P., and Carli, V. (2018), Interactions between youth and mental health professionals: The Youth Aware of Mental health (YAM) program experience. *PLoS One*, 13: e0191843. doi: 10.1371/journal.pone.0191843.
- ³Tompkins, T. L., Witt, J., & Abraibesh, N. (2010), Does a gatekeeper suicide prevention program work in a school setting? Evaluating training outcome and moderators of effectiveness. *Suicide Life Threat Behav*, 40: 506-515. doi: 10.1521/suli.2010.40.5.506.⁴W
- ⁴Kaess, M., Brunner, R., Parzer, P., Carli, V., Apter, A., Balazs, J. A., et al. (2014). Risk-behaviour screening for identifying adolescents with mental health problems in Europe. *European child & adolescent psychiatry*, 23(7), 611-620.
- ⁵Wasserman, D., Hoven, C. W., Wasserman, C., Wall, M., Eisenberg, R., Hadlaczky, G., et al. (2015), School-based suicide prevention programmes: the SEYLE cluster-randomised, controlled trial. *Lancet*, 385: 1536-1544. doi: 10.1016/S0140-6736(14)61213-7.
- ⁶Joiner, T. E., Jr. (2005), *Why people die by suicide*: Cambridge, MA, US: Harvard University Press.
- ⁷Apter, A., Gothelf, D., Orbach, I., Weizman, R., Ratzoni, G., Har-Even, D. and Tyano, S. (1995), Correlation of suicidal and violent behavior in different diagnostic categories in hospitalized adolescent patients. *J Am Acad Child Adolesc Psychiatry*, 34: 912-918.

Glossary

Youth Aware of Mental Health Program (YAM): a manual, universal intervention school-based program that targets all pupils through a focused workshop to raise mental health awareness and enhance coping skills when dealing with adverse life events, stress and suicidal behaviours. YAM is typically delivered in three sessions, totalling 5 hours of training.

Question, Persuade, and Refer (QPR): a manual gatekeeper training program for suicide prevention. In this case, the gatekeepers are schoolteachers, who are trained to learn how to recognize the warning signs of a suicide crisis and how to question, persuade and refer someone to help.

Professional screening of at-risk pupils (ProfScreen): a program that screens baseline questionnaire answers for pre-established cut-off points of psychopathology symptoms and risk behaviours. Young people identified as at risk of suicide are then recommended for clinical referral.

Interpersonal theory of suicide (IPT): IPTS proposes that an interaction between two interpersonal constructs — "thwarted belongingness" (experience of loneliness/isolation) and "perceived burdensomeness" (perception of being a burden on others) — increases a desire to commit suicide. The theory proposes that this interaction will lead to SA only in the presence of "acquired capability for suicide", through exposure and thus habituation to painful or fearsome experiences such as prior self-injury or risk behaviours.

Two-pathway model of suicide: this model conceptualizes two separate mechanisms leading to SA among adolescents. One pathway is driven via reactive self-directed aggression and impulsivity, which may have underlying dysregulated serotonin metabolism or non-conventionality with social norms. The other independent pathway is driven by an internalizing process based on anxiety and depression that might be related to interpersonal distress.