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Depression, Self-harm and Suicidal thoughts edition

Reporting of depression symptoms in children with ADHD: do parents know best?

Social connectedness and suicidal thoughts and behaviors among adolescents

Plus
Children's Understanding of Depression

Editorial

Guest Editor, Dr. Mark Lovell

This edition of The Bridge focusses on depression, self-harm and suicidal thoughts. These are important clinical topics. Depression leads to high levels of morbidity and can have implications for mental health in the longer term. Suicide is the outcome that every family and clinician dreads and risk assessment and planning often seeks to reduce the risks of this occurring. Depression and suicidal thoughts and behaviours are clearly linked but depression is not the only mental illness or behavioural disorder linked to self-harm and/or death by suicide, so a broader view of causality and association is required.

There are good treatments available for depression, (pharmacological and non-pharmacological) though more options are required to meet the needs of those that do not respond well to treatment. The costs of depression are vast. They include not only the treatment cost but also the broader repercussions for individuals and society as a whole, especially with regards to education and employment.

In this edition we have research summaries from both of ACAMH's journals CAMH, and JCPP, on; family dysfunction, childhood adversity and self-harm, children's understanding of depression, depressive symptoms in ADHD and social connectedness and suicidal thoughts and behaviours. These demonstrate the wide variety of articles published on these topics and the continued evidence base that is being developed.

This is my last edition of the bridge as acting editor and I would like to thank you, the reader, for your continued engagement and comments.

Dr. Mark Lovell
Acting Editor

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.

Note from the Publications Department:

Massive thanks to Dr. Mark Lovell for stepping in and editing three issues of The Bridge. Dr. Juliette Kennedy will be returning to editor duties from the July 2019 issue onwards.

Reporting of depression symptoms in children with ADHD: do parents know best?

By Annie Fraser

Dr Annie Fraser completed her MBBCh and intercalated BSc in Psychology at Cardiff University, where her research focused on the characteristics of depression in children and adolescents with ADHD. She is currently working as a junior doctor in Hampshire.

Attention-deficit/hyperactivity disorder (ADHD) is a common neurodevelopmental disorder characterised by hyperactive-impulsiveness and inattention. ADHD often co-occurs with emotional disorders such as depression and anxiety. Depression in particular is prominent among adolescents with ADHD, and can be difficult to identify as it can have similar features both to ADHD itself (e.g. poor concentration, restlessness) and to some of the side effects of ADHD medication (e.g. insomnia and weight loss). It is very important to promptly and correctly identify depression in those with ADHD so that it can be appropriately managed, as additional depression can lead to worse outcomes than ADHD alone.

One way of identifying low mood in young people is to use standardised questionnaires. These are often completed by both children and their parents, as information from both informants can add different yet equally valuable perspectives. The extent to which parents and children agree on these symptoms in children with ADHD is not clear.

Therefore our research focused on a) examining the types of depression symptoms experienced by children with ADHD, as compared to those without ADHD, and b) comparing the way in which depression symptoms are reported by parents and children, both in an ADHD sample and a population sample.

We sent out a depression screen, the Mood and Feelings questionnaire, to a sample of children with ADHD who had previously taken part in a Cardiff University ADHD study. These questionnaires asked children whether they were currently experiencing

any of the symptoms of depression, such as low mood, negative thoughts, and physical symptoms such as tiredness or loss of appetite. The parents also completed questionnaires asking the same questions about their children. We also looked at parent- and child-rated depression symptoms in a population sample, the Cardiff Study of All Wales and North West of England Twin register, which used the same depression questionnaire. We used these two samples to firstly, compare the depression symptoms experienced in those with and without ADHD and secondly, to compare how parents and children report depression symptoms, both in those with ADHD and in the general population.

The findings showed that the ADHD sample displayed significantly higher rates of depression symptoms than the population sample, with the parent-report questionnaire in particular showing over half of the ADHD sample scoring above the validated clinical cut off for depression. This is compared to just 10% of children falling above this cut-off in the population sample. The most common depression symptoms found in the ADHD sample included difficulty concentrating, restlessness and feeling grumpy with their parents. These symptoms overlap with those of ADHD so it is unsurprising that they were common in this sample. This could suggest that depression scores in this sample are artificially elevated by symptoms which overlap with ADHD symptoms. However, these symptoms were also the most common symptoms experienced in the population sample. With this in mind, we concluded that in those with ADHD it may be important to focus on a change in, or a worsening of, these symptoms as an indicator of depression, rather than interpreting a score at a single time-point.

Differences in the types of depression symptoms reported by the two study samples were minor. The symptoms "I thought I could never be as good as the other kids", "I thought there was nothing good for me in the future" and "I felt I was no good anymore" were more common in the ADHD group than in the control group. This is also consistent with previous research, and suggests that children and adolescents with ADHD have low self-esteem.

We also found that suicidal thoughts were present in 20-25% of the ADHD sample, according to both parent-report and child-report, compared to 2-7% of the population sample. This identifies this ADHD sample as being at a greater risk of high severity depression than the population sample.

In terms of the agreement between parent and child reports of depression symptoms, we found that, in general, parents and children were reporting the same symptoms. We also found that in the ADHD sample parents reported much higher levels of depression symptoms than the children, whereas in the population sample it was the children who were reporting the higher levels. This could suggest that children with ADHD are either poor at reporting, or under-report the severity of, their own symptoms of depression. This finding is of particular importance, as it questions the utility of relying only on child-report questionnaires for identifying depression amongst children and adolescents with ADHD. The possibility that children with ADHD under-estimate the severity of their conditions should be taken into account when using depression screening tools in young people with ADHD.

In summary, these findings provide evidence for the high co-occurrence of depression symptoms with ADHD. Furthermore, they indicate that the symptoms of depression most commonly seen in ADHD are similar to those seen in the general population. Findings also suggest that children with ADHD may under-report their depression symptoms when compared to those in a general population sample. This should be taken into account when screening children with ADHD for depression in a clinical setting.

Key points:

- Depression symptoms are common in children and adolescents with ADHD.

- The profile of depression symptoms in ADHD is similar to that in the general population.

- Children with ADHD report lower levels of depression symptoms than their parents, the opposite pattern to the general population.

- Children with ADHD may under-report the severity of their own symptoms of depression meaning key risk indicators may be missed if relying on child reports alone.

Continued family dysfunction accounts for the association between childhood adversity and adolescent self-harm

By Matthew Cassels

Matthew Cassels has a PhD in Child and Adolescent Psychiatry and an MPhil in Social and Developmental Psychology from the University of Cambridge where he specialized in identifying risk factors and correlates of non-suicidal self-injury among adolescents. Matthew's doctoral studies were funded by a Gates Cambridge Scholarship and the present study was funded by the Wellcome Trust.

Non-suicidal self-injury (NSSI) is any deliberate attempt at inflicting physical self-harm in the absence of suicidal intent. NSSI peaks during adolescence, with roughly 17% of adolescents reporting that they have engaged in it at least once. NSSI is predictive of mental health problems and suicide attempts, and is associated with numerous other negative social, psychological, and physical outcomes. As such, identifying possible risk factors and targets for intervention of NSSI is of paramount importance. Childhood family adversity (CFA) has been identified as one of the major risk factors for

NSSI during adolescence. However, the ways in which traumatic events that occur in early childhood confer risk for the emergence of NSSI up to a decade later are unclear. Clarifying these pathways could help inform specific treatment, intervention, and risk prevention targets for adolescent NSSI.

In a new study published in the Journal of Child Psychology and Psychiatry, we tested four alternative hypotheses to explain this association between CFA occurring before age 5 and new onset of NSSI between ages 14 to 17.

1) *Mental illness:* CFA is a strong predictor of increased mental illness. Nearly all mental illness is, in turn, associated with increased rates of NSSI. Therefore, adolescent NSSI may arise from mental illness resulting from CFA as opposed to being a direct result of the original CFA. In this case, interventions could focus on addressing mental illness.

2) *Continued family dysfunction:* CFA can have a lasting negative impact on family functioning and child-parent relationships, and it often occurs within a wider context of continuing family dysfunction. This continued family dysfunction associated with CFA may act as a proximal risk for NSSI as opposed to the CFA itself. In this case, interventions aimed at improving family dysfunction may be most effective at reducing NSSI.

3) *Social buffer:* Positive family and/or peer relationships in adolescence may buffer the association between CFA and NSSI, either because social support acts as a protective factor, or because the family members who previously contributed to adversity are now more positive influences.

4) *Attachment:* Conversely, attachment theory suggests that early experiences have a lasting and immutable impact on emotional development and psychopathology. Thus, CFA may be a necessary and sufficient cause for NSSI regardless of more proximal factors. In this case, the most effective measure for reducing adolescent NSSI may be focusing on preventing CFA.

To test these four possible pathways, data were collected from a community sample of 933 fourteen year-olds with no history of NSSI. At baseline (age 14), data were collected on lifetime history of NSSI and diagnosis of mental illness, CFA occurring before age 5, as well as current family functioning, quality of friendships, and socioeconomic status. Follow-up data on NSSI were collected again three years later (age 17). As the sample was restricted to participants who reported no lifetime NSSI at age 14, all instances of NSSI reported at age 17 occurred after baseline data collection. Thus, all observed associations between other variables and NSSI are prospective.

A total of 59/933 (6%) participants reported new onset of NSSI by age 17. Poorer family functioning at age 14, mental illness by 14, and CFA before age 5 were all significant risk factors for NSSI by age 17. Friendships, socioeconomic status, and gender were not associated with NSSI. Path analyses supported the continued family dysfunction model; the association between CFA before age 5 and subsequent onset of NSSI between 14-17 years was largely accounted for by continued poor family functioning at age 14.

When traumatic experiences happen in the context of continuing family dysfunction, are perpetrated by a parent figure, or are not responded to adequately by a parent, family functioning is likely to be impaired. Impaired family functioning later in adolescence is, in turn, robustly associated with NSSI. The present findings, however, suggest that improving family relationships may reduce the risk of NSSI among children who have been exposed to CFA.

Our analyses did not support any of the other hypothesized pathways from CFA to NSSI. Specifically, the pathway from CFA to NSSI through mental illness was not significant, and we found no support for the protective effects of positive peer or family relationships. In fact, peer relationships were not associated with NSSI in any way, in keeping with the literature. With regard to family relationships, whether or not family dysfunction continues seems to be the primary factor that influences risk of NSSI. Furthermore, we found no support for the attachment model; there was no significant direct association between CFA and NSSI when proximal family functioning and mental illness were accounted for. This suggests that the effects of CFA on NSSI are modifiable and perhaps that internal working models of threat can be updated by subsequent experience. Although further research is needed to investigate potential methods of

improving family relationships after CFA, the present findings support family-focused approaches to preventing adolescent NSSI. The findings also highlight the importance that services helping families in trouble, such as social care, try to address family relationships directly.

One limitation of this study is that NSSI was measured with a single-item, 'Have you ever tried to hurt yourself on purpose without trying to kill yourself?' This may not have been sufficient to capture all NSSI acts and did not distinguish between different methods, motivations or frequencies of NSSI. This is potentially problematic as different methods and frequencies of NSSI have been related to different psychological and environmental factors. Another limitation of this study is that the sampling age range may have been too late to capture many first incidents of NSSI. The natural course of NSSI is curvilinear, with a sharp increase around age 12 and a decrease in later adolescence. Longitudinal studies beginning at a younger age (before 12) would be greatly beneficial as they would capture more first incidents of NSSI.

Despite these limitations, the present study showed that the well-demonstrated association between CFA and adolescent NSSI can largely be accounted for by continued family dysfunction, supporting a family focused approach to NSSI treatment and intervention.

Key points:

Overview
- Childhood family adversity (CFA) is a well-demonstrated risk factor for adolescent non-suicidal self-injury (NSSI).
- Pathways between CFA and subsequent onset of NSSI are unclear.
- We demonstrate that the association between CFA before age 5 and NSSI between ages 14-17 is due in large part to continued poor family functioning at age 14.

Clinical practice
- These findings suggest that improving family function after CFA may prevent later NSSI.
- These findings support a family-focused approach to preventing adolescent NSSI.

Gaps and recommendations for further science
- Future research should explore the efficacy of family focused therapies for reducing incidence of NSSI among young people with histories of CFA.

Social connectedness and suicidal thoughts and behaviors among adolescents

By John F. Gunn III

John Gunn III is a doctoral candidate at Montclair State University in the department of Family Science and Human Development. His work explores the impact of social experiences, such as connectedness, ostracism, and exclusion, in the development of suicidal thoughts and behaviors, the exploration of theoretical models for suicide, and the impact of media coverage on suicide.

Suicide is a major public health concern claiming over 44,000 lives annually and ranking within the top 10 causes of death for the general population and the 2nd leading cause of death for those aged 15-24 years of age (though there is variation in this when examining causes by racial groups). In the United States, this represented 5,723 deaths in 2016 among those aged 15-24. Even more adolescents attempt suicide. The national average of attempt to death is 25 attempts for every 1 death by suicide. For those aged 15-24 there are an estimated 100 attempts to every death. This represents over 570,000 suicide attempts for every one death of those aged 15-24. Given these numbers, efforts to better understand the relationship between risk and protective factors and suicidal thoughts and behaviours among adolescents and young adults can be life-saving.

Recent models of suicide propose the importance of social connection (or lack thereof) in the development of suicidal behaviour. The role of social connection is an old idea in the field of suicidology. Durkheim in 1897 proposed a sociological model of suicidal behaviour and postulated the role of social integration in national suicide rates. According to Durkheim, lack of social integration or too much social integration could lead to elevated suicide rates. This view focused on suicide at a macro-level and researchers working from Durkheim's model have examined national suicide rates in relation to marital status, religiosity, and other proxy measures of social integration. Interested in suicidal thoughts and behaviours from a psychological perspective, the Interpersonal-Psychological Theory of Suicide (IPTS) proposes that suicide results from the co-occurrence of three risk factors: (1) thwarted belongingness, (2) perceived burdensomeness, and (3) the acquired capability for suicide. Most applicable to the present study is the concept of thwarted belongingness which is the perception of lowered social connection, a sense of general loneliness, and that others do not care about you.

In our recent work, we examine the impact of adolescents' overall social connection as well as specific forms (family and school) on the occurrence

of suicidal thoughts and behaviours. We also wished to explore the transition from suicidal thoughts to suicidal behaviours, an important transition with prevention and treatment applications. Our study, using the National Longitudinal Study of Adolescent to Adult Health (ADD Health), examined the impact of changes in social connection and its corresponding relationship to suicidal thoughts and behaviours over a 1-year period. Wave 1 of the study was collected during the 1994-1995 school year and Wave 2 was collected in 1996. At Wave 1 participants ranged from 12 to 21 years of age, with an average age of 16.04 and more than half were females (51.6%). Those interested in a more in-depth review of the sampling procedures and ethical guidelines used can find them at the University of Michigan's data sharing website (https://www.icpsr.umich.edu/icpsrweb/). Those expressing suicidal thoughts represented 12.6% and 10.8% of the participants in Wave 1 and 2 respectively and suicidal behaviours were reported in 3.5% and 4.0%, respectively.

While it is important to identify those at risk for suicidal thoughts, steps to identify those making the transition from thoughts to behaviour are vitally important. As such, two models were tested in our study with our connectedness measures. First, we examined the prediction of suicidal thoughts among the full public use sample (N = 4,753) and found our model was predictive of suicidal thoughts. Findings supported the role of overall social connection (e.g., general loneliness, feelings that people disliked you) and parental connection (e.g., felt close to mother, felt close to father) as protective factors against suicidal thoughts. Increases in overall social connection and parental connection were both independently predictive of lowered likelihood of reporting suicidal thoughts. Additionally, and as has been supported in previous research, past suicidal thoughts were the strongest predictor of future suicidal thoughts. Gender differences were also found, with female adolescents almost twice as likely to report suicidal thoughts as male adolescents.

In the second model, we focused on the prediction of suicidal behaviours from the sub-sample of those who reported on suicide attempts (N = 230). Once more, our full model was significant at predicting suicidal behaviours. Findings supported the role of school connectedness as a protective factor against reporting suicide attempt behaviours. School connectedness was a scale which included questions which assessed information such as if students felt like they were a part of their school or felt close to the people at their school. Increases in school connectedness were associated with lowered likelihood of reporting suicide attempts. Past suicidal behaviour was also predictive of suicide attempt at Wave 2, a finding that has been supported by past research.

There are a number of limitations to consider when examining the present findings. Given the close proximity of the two waves of data (only a single year) we cannot make conclusions about long-term effects of our predictors on suicide risk later in life. Finally, our connection variables are computed by subtracting the scores at one timepoint from another to assess change but may not reflect yearlong changes in connectivity. Despite these limitations, the present study adds to our understanding of the development of suicidal thoughts and behaviours. Given these findings, and other findings in the field, the role of social connectedness in alleviating suicide risk is compelling.

Key points:

- Future research is needed to further explore what role social connectedness plays in adolescent suicidal thoughts and behaviours, with an emphasis on the different forms of social connectedness (i.e., parental connectedness, school connectedness, and peer connectedness).

- The findings also serve the practical function of providing for prevention. The link between social connectedness's and suicidal thoughts and behaviours can easily be targeted within a school setting for the developmental ages examined.

- School programs that emphasise interpersonal relationship development and connecting adolescents can aid in lowering the risk of these populations.

- There are many factors contributing to the development of adolescent suicidal thought and behaviours. Some of these (such as past suicidal behaviour, genetic vulnerabilities) would be hard or potentially impossible to target. Social connectedness, however, is one factor that could be more easily targeted.

Children's Understanding of Depression

By Niki Georgakakou-Koutsonikou, Emily Taylor & Jo Williams

The authors are based at the Centre for Applied Developmental Psychology, Clinical and Health Psychology, School of Health in Social Sciences, University of Edinburgh.

Depression is a mental illness that affects children and especially adolescents, however, little is known about how children and adolescents understand depression. Gaining an understanding of how children perceive illness can facilitate effective communication with health professionals and children's active involvement in decision-making about their health. Research on children's understanding of mental illness can improve our understanding of stigma and peer exclusion and inform the development of tailored psychoeducational interventions. To date, there is considerably less focus on children's understanding of mental health in comparison to physical health, and less research on children's understanding than on adolescent groups.

The aim of this study was to explore how children understand depression as it affects children and adolescents. We also wanted to examine whether age, gender and experience of depression, or contact with people with depression, is related to children's understanding.

To address these questions, we conducted individual interviews with 105 children, 38 children aged 8-9 years, and 67 children aged 11-12 years. To introduce the topic, we created three short stories describing fictional child and adolescent characters with depression, as well as a control story of a character without depressive symptoms. These were read to each child, who was then asked a standardised series of questions. The foci of the questions were based on the model of illness representations, which suggests that there are five dimensions to a cognitive representation of illness:

1) Identity (its symptoms and label),
2) Causes,
3) Consequences (impact of the illness),
4) Curability
5) Timeline to recovery.

To analyse the interview data, we performed content analysis for each of the five categories of the illness representation model, by finding common themes in children's responses. This analysis was then followed by quantitative content analysis techniques and statistical testing.

The majority of children identified that the characters in the stories had a difficulty of a psychological nature, in comparison to the control story. Approximately half of the children considered this difficulty to be a mental health problem, and less than one-fifth were able to label this difficulty as depression. Children considered various causes of depression, which were primarily psychosocial.

The causes of perceived depression were grouped in six categories:

1) Peer relationships (mentioned by 45% of children) include bullying, disputes with peers and loneliness.

2) Family factors (37%) involve parental divorce, disputes and being unloved or neglected by parents.

3) Individual factors (32%) reflect the child's internal state, involving factors such as negative thinking, extensive worrying and low self-esteem.

4) Physiological factors (16%), included fatigue, sleep difficulties, poor appetite, physical illness and puberty.

5) Factors related to school (17%), such as exam stress or transitions to secondary school.

6) Loss was considered a cause by one in every ten children (10%).

Most children considered depression to be curable (87%) or possibly curable (11%), within a short period of time. Specifically, the percentages of responses in each duration category were: up to one day (3%), a few days (12%), a couple of weeks (18%), one to two months (34%), more than two months to less than a year (21%), a year (6%), and more than a year (5%).

If depression is left untreated, children anticipated primarily negative outcomes. Perceived negative consequences of depression involved: deterioration of emotional state (30% of participants), interpersonal difficulties in friendships and interactions with peers, including bullying (15%), decline of school performance or school refusal (14%), behavioural consequences (11%) such as disengagement from activities, changes in sleep and appetite, potential risk (9%) including self-harm and suicidality (9%) and cognitive consequences, including negative thinking or self-beliefs (6%). Finally, long-term consequences (9%) included negative career prospects, financial difficulties and general underachievement.

Older children's concepts were more sophisticated than younger children's. Eleven to twelve-year-olds were more able to recognise depression, categorising depression as a mental health problem and differentiating between clinical depression and control conditions. Older children suggested a larger number of causes for each character and anticipated more negative consequences of depression and a longer period to recovery. Gender and experience (either personal or through contact) were not systematically associated with how children conceptualise depression.

Children from the age of 8-9 years are able to identify emotional difficulties displayed by hypothetical characters and demonstrate detailed concepts of depression that align more closely with clinical conceptualisations with age. Some differences between children's and professionals' conceptualisations of depression are evident, including the categorisation of depression as a mental illness, and the perceived timeline to recovery.

In clinical practice, it is important to take into consideration children's beliefs and to target misconceptions. Clinicians working with children with depressive symptoms should consider exploring children's understanding and treatment expectations as part of the treatment process. Surprisingly, contact or experience was not related to children's understanding of depression. Clinicians should therefore be aware that children in this age group who have contact with a person with depression (e.g. parent or sibling) do not necessarily have more knowledge about depression than their peers with no contact.

In this study, it is evident that children might use the term depression to refer to the emotional state of feeling low, rather than a psychological disorder. In clinical practice and in mental health education, defining terms used for mental health problems that are also commonly used in everyday language to describe emotional states (e.g. depression, anxiety) would facilitate shared understanding.

This is the first study to explore in detail how children think about depression. A limitation of this study is the fictional nature of the characters used; it is unknown whether children's concepts would equal personal beliefs if experiencing depression. Further, differences between the three stories used are difficult to interpret due to the study design. Cultural and ethnic differences were not examined in this study. Finally, this study examined children's understanding of depression affecting children or adolescents; children's views of depression affecting adults might differ.

Key implications for practice:

- The results suggest that CAMHS practitioners should consider children's views of depression in their communications about diagnosis, prognosis and treatment of depression

- There is also a need for preventative school-based interventions to enhance children's understanding of depression and address the some misconceptions that children hold about mental illness

- Further scientific research is required on children's understandings of childhood mental illnesses and psychological difficulties such as depression, anxiety, conduct disorders and learning difficulties.

Professor Joanne Williams

I am an applied developmental psychologist with research interests in child and adolescent health and mental health, the development of health concepts, developmental disabilities and children's interactions with animals.

Since 2012 I have been Senior Lecturer/Professor of Applied Developmental Psychology in Clinical and Health Psychology. I coordinate Children, Adolescents and Animals Research (caar), and I am Deputy Director of the Centre for Applied Developmental Psychology.

Dr Emily Taylor

I joined the School of Health in Social Science in September 2010, where I am Programme Director for the postgraduate programmes in Children and Young People's Mental Health and Psychological Practice and the PGCert cyCBT. I continue to work in NHS Lothian in a CAMHS outpatient team, providing CBT and IPT. (bio via www.ed.ac.uk)

Dr Niki Georgakakou-Koutsonikou

I began my PhD in Clinical Psychology at the University of Edinburgh in 2013 examining children and adolescents' conceptualisations of depression.

My research interests include children and young people's understanding of mental health and illness, mental health stigma and help-seeking.