Suicide and self harm

Suicide risk in the young: what, how and who to study

Research highlights from our journals JCPP and CAMH

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PAPYRUS - working for prevention of suicide in young people

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Editor of The Bridge

**Foreword from the Editor**

This edition of the Bridge focuses on self harm and suicide research in young people. As a clinician, it certainly does feel that more and more young people are being referred, following self harm or with suicidal ideas, to the CAMHS service I work in. This nationwide increase in numbers is acknowledged in recent government reports, which are summarised in this edition. Cha et al. highlight that the prevalence of suicidal ideation in young people between the ages of 10 and 17 lies somewhere between 19 and 24%. Orchard et al. found, that in the young people diagnosed with depressive disorder in their study, suicidal ideation was present in 86%. This certainly fits with my experience of the young people who I see in clinic who meet ICD10 criteria for depressive disorder of moderate severity, in whom suicidal ideation is common. This symptom can be very frightening for young people and their parents and carers and the assessment and management of suicide risk in young people can present a challenge for professionals and families. The New Models of care initiative hopes to prevent young people being admitted to hospital, by supporting enhanced community provision. CAMHS staff do have the principles of harm minimisation and structured clinical judgement (Best Practice in managing Risk DOH 2007) to guide them in decision making and care planning. However, Orchard et al. do comment on the emotional burden to carers and staff of managing this degree of risk on a day to day basis. Stewart et al. work highlights the importance of involving and supporting parents and carers of young people who have self harmed or who feel suicidal. In my experience this partnership working is essential to safely manage risk and to help young people recover. The work of third sector partner PAPYRUS is also described in this edition. PAPYRUS was founded by people with a lived experience of young suicide and highlights that suicide is everyone’s business and that the whole community should be concerned about it. The charity’s ‘spot the signs’ campaign, encourages those in contact with young people to ask them directly about suicidal ideas, if they are worried about them, so that talking can be encouraged and help can be sought. There is a lot more information and support for young people, carers and professionals on the PAPYRUS website. I hope you find this edition helpful.

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**Place children and young people at the heart of the strategy**

– A recent call by a joint UK Select Committee

By Tim Colebrook, ACAMH Editorial Assistant

In their recent 1st joint Select Committee report, May 2018¹, the Education, Health and Social Care Committees call upon the government to take a stronger stance on child and adolescent mental health and to join up the appropriate services in a way that places children and young people at the heart of its strategy². Their report comes a year after the publication of the Third Progress Report on the UK Government’s National Strategy for suicide prevention in England, published in January 2017³ and almost half a year after the joint Department of Health and Department for Education Green Paper, on child and adolescent mental health provision (published December 2017⁴.)

**The National Strategy**

The original National Strategy was commissioned in 2012 as a response to the growing rates of suicide in the UK. In the Third Progress Report, it is stated that while suicide rates remain comparatively low for people under 25, among adolescents between the ages of 15 to 19 years, there has been an increase in suicide in the last three years. Of those who died, over half had previously self-harmed⁵. Amid growing concerns from professionals working with at-risk children and adolescents, the report sets out a number of commitments to help achieve the aim of reducing the national suicide rate by 10% by 2020/2021. Notably there is an emphasis on the key role that schools and colleges can perform by directly engaging students e.g. through mentoring activities, such as Personal, Health, Social and Economic (PSHE) guidance, and age-appropriate lesson plans on mental health. The report also references the development of the joint Green Paper, which would provide further proposals for improving services and increasing preventative activities.

**Transforming Children and Young People’s Mental Health Provision**

The Green Paper adds further evidence for the need to act. It cites an Office for National Statistics survey which states that based on child reports, 7% of children aged 5-16 have self-harmed, rising to 28% for those with an
emotional disorder. It also refers to a recent study which reported that self-harm rates may have risen by as much as 68% in girls aged 13-16 since 2011. The Green paper states that, despite suicide and self-harm prevention programmes improving knowledge, attitudes and help-seeking behaviours, there is little robust evidence that suggests they have anything more than a small effect in terms of reducing suicide rates. However, it does endorse the Third Progress Report’s stance on whole school approaches and makes a commitment to providing further mental health training to teachers and staff members and ensuring that at least one member of staff in every primary and secondary school is trained in mental health awareness. Such steps are welcome as, according to a Department for Education’s 2016 Teacher’s Voice survey, 23% of teachers did not feel equipped to identify behaviour that might indicate an underlying mental health need and 34% did not feel equipped to teach those in their class who had a mental health need.

Failing a Generation

In spite of such commitments, the recent joint UK Select Committee has challenged the Government’s strategy as unambitious and unable to provide the kind of care that many children and adolescents desperately need. Whilst it supports the need for whole school approaches, it raises concerns about an over reliance on teachers and increasing the pressure on a workforce that is already struggling with its recruitment and retention of staff members. The Select Committee also highlights what it considers to be failings in the scope of the Green Paper, to take into account the needs of particular vulnerable groups and the lack of any serious attention to prevention and early intervention. Given the reported rise in rates of child and adolescent suicide and self-harm, the Select Committee calls upon the government to place “greater emphasis on, and provide a strategy for, prevention, early intervention and dealing with some of the root causes of child mental health problems”.

Key points:

- Research suggests that the rate of suicide and self-harm amongst certain groups of children and adolescents has risen in the last three years.
- In 2012, the UK Government implemented a National Strategy to deal with the rise of suicide and self-harm on a national scale, this has been followed up every few years with a progress report.
- Using the Third Progress Report and a joint Department Green Paper on the provision of child and adolescent mental health, the UK Government has set out a strategy and commitments to preventing suicide and self-harm in the UK.
- A recent joint Select Committee has challenged the ambition of the UK Government and has called for the needs of children and adolescents to be given a place at the heart of the National Strategy.

References:

Suicide is the second leading cause of death in children and adolescents and occurs at a higher rate in this population than in any other age group. In their latest Annual Research Review published in the Journal of Child Psychology and Psychiatry, Christine B. Cha and colleagues outline the epidemiology and potential etiology of suicide, indicate possible therapeutic and preventative strategies and highlight the areas that remain for future research.

Suicide is a global, leading cause of death, but it is most prevalent in adolescents and young adults. A wealth of studies has identified potential risk factors to help explain how and why suicidal behaviours emerge during adolescence. But despite vast progress, a full understanding of the etiology is lacking, thus hindering the development of effective therapeutic and preventative measures.

Definitions: Cha et al. first note that there is a lack of consistent definitions and classifications throughout the suicide literature. As such, they encourage that sufficient detail be provided when defining study variables in future studies, to avoid misclassification. Cha et al. define suicidal ideation as "the consideration of or desire to end one's own life". Such desire may range from passive (wanting to be dead) to active ideation (wanting to kill oneself), and may occur as frequently as once per week. Suicide attempt differs from ideation as with an attempt, an action intended to deliberately end one's own life is made. Suicide death is defined as "a fatal action to deliberately end one's own life", and the method that is used seems to vary geographically.

Epidemiology: The prevalence of suicidal ideation in adolescents ranges from 19.8 to 24.0%, starting after the age of 10 years and rapidly increasing up to age 17 years. Those who experience suicidal ideation during adolescence are ~12 times more likely to attempt suicide by the age of 30 years. Those who experience suicidal ideation during adolescence are ~12 times more likely to attempt suicide by the age of 30 years. Suicide attempts have a lifetime prevalence of 3.1% to 8.8%; they typically occur after the age of 12 years and increase in prevalence in mid-to-late adolescence. Suicide-associated death accounts for 8.5% of all deaths in adolescents and young adults aged 15 to 29 years, and increases in prevalence from ages 15 to 19 years.

The developmental nature of suicide risk across adolescence is under-reported. Interestingly, the timing of puberty has been shown to have an effect on suicidal behaviours, but how or why this is the case is unknown. Cha et al. suggest, therefore, that more longitudinal studies that include wide age ranges and encompass developmental shifts during adolescence would be valuable.

Gender differences can be observed in suicidal behaviour: adolescent girls are more likely to experience suicidal ideation and attempt suicide than boys, yet boys are up to three times more likely to die by suicide. Gender identity and sexual orientation also impacts on the prevalence of suicide ideation and attempt. Adolescents who relate to a sexual minority status show an
elevated risk of suicidal behaviours than their heterosexual counterparts. Risk of suicide death is also higher in indigenous American Indian, Alaska Native and Aboriginal youths in the USA and Canada compared to other ethnicities. However, these high-risk socio-demographic populations are under-represented in the suicide literature and thus Cha et al. encourage more attention be paid to these high-risk populations in future studies.

Etiology: Many risk factors for suicidal behaviours have been described, but a clear understanding of the pathways through which suicidal behaviours develop has not yet been reached. In terms of environmental risk factors, childhood maltreatment/bullying is one of the strongest factors influencing suicidal thoughts and behaviours in adolescents. Twin studies have shown that sexual abuse in childhood can predict future suicidal ideation and suicide attempt. Long periods of exposure to bullying also increase the likelihood of suicidal ideation and attempt, in both the victim and offender. Cyber bullying and the impact of social media is an important consideration in today’s digital revolution, but Cha et al. find that the data thus far are mixed: some have proposed that the Internet provides a forum of help and social support, while others highlight that it can offer sources of suicide-related information.

Psychological factors that correlate with suicidal behaviours have mostly been measured by self-report, behaviour and physiology. The researchers describe that affective processes, such as worthlessness, low self-esteem and negative self-referential thinking, can strongly predict future suicidal ideation and suicide attempt. In terms of cognitive factors that correlate with suicidal behaviours, impulsivity has received moderate support as a risk factor for suicidal behaviour, particularly when in combination with aggression. Others have reported that deficits in sustained attention and vigilance correlate with suicidal thoughts and behaviours. Interpersonal connectedness (loneliness) has been widely assessed in longitudinal studies, but the evidence in support of loneliness as a direct risk factor for suicidal behaviours is only moderate.

Biological correlates: Several biological correlates with suicidal thoughts have been described. For example, researchers identified lower functional connectivity between several neural regions in those who are suicidal compared to controls. Specifically, structural abnormalities have been detected in the hippocampus, dorsolateral prefrontal cortex and highly interconnected brain neural networks involved in regulating the resting brain state. At the molecular level, serotonin is the most widely studied molecule in terms of suicidal behaviours, with studies dating back to the 1970’s showing low serotonin levels in those who have died by suicide compared to controls. Preliminary studies have also implicated abnormal TNFα, IL-β and BDNF levels in suicidal behaviours. Finally, although preliminary studies support that there is a heritable component to suicidal behaviour, the genetic basis is currently unknown. Cha et al. consider that genetic studies are lacking in this field, in particular genome wide association studies.

Although these biological findings are, on the most part, only preliminary, research in this area is rapidly evolving. Cha et al highlight that the biological factors identified thus far have corroborated behavioural and self-reported data but there remains disconnect between biological mechanisms and overt behaviours.

**Full article is available to be viewed online at** [https://bit.ly/2lJ25Mz](https://bit.ly/2lJ25Mz)

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**Further reading:**


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**Referring to:**

Navigating an unfamiliar world: how parents of young people that self harm experience support and treatment

By Dr. Anne Stewart, Consultant Child & Adolescent Psychiatrist, Department of Psychiatry, University of Oxford

This is a summary of the paper published in CAMH - Stewart et al. Navigating an unfamiliar world: how parents of young people who self-harm experience support and treatment. Child and Adolescent Mental Health doi: 10.1111/camh.12205

Self-harm is a common reason for contact with clinical services, however to date there is very little research focused on parents’ perspectives of care following self-harm. Findings from community studies indicate that the impact on families can be devastating. In this study we explored how parents of young people who self-harm experience support and treatment and aim to generate information for parents and clinicians to help them navigate through this experience.

The study was part of a wider qualitative investigation exploring parental views on self-harm. Semi-structured interviews were conducted with 37 parents of 35 young people who had self-harmed at any point in the past. The majority of the young people were daughters and 20 of them had been admitted to hospital (either general or psychiatric). Interviews consisted of an open-ended section where parents were able to describe their experience followed by prompts on specific areas. Interviews were transcribed and analysed using a modified grounded theory, identifying key themes.

Participants described a range of reactions to treatment and support for themselves and the young person. We identified three main themes: attitudes towards the young person, practical aspects of help and the need for parents to be involved.

Attitudes towards the young person: Many parents described the importance of the professionals’ attitude towards their child, ranging from very helpful and caring approaches to a judgemental approach which was experienced as very distressing. Less positive attitudes were described, particularly if self-harm had occurred on more than one occasion.

Parents described that the experience of assessment, could be felt as an interrogation or a “tick-box exercise” that may make it hard for the young person to open up. Others described how the young person was not always taken seriously. When the young person was taken seriously, this was considerably reassuring for the parent. Many parents described the importance for the young person of building up a relationship with the clinician. This made all the difference to engagement.

“The CPN is very very honest with her and …….she won’t buy into what she’s saying. She will challenge her. Sometimes it doesn’t go down very well, as you can imagine. Sometimes she’s very angry with her (CPN) but on the whole, they have a trusting good relationship and that’s really important….It’s quite important for my peace of mind as well as hers.” Joy.

Practical aspects of help: Parents reported on practical aspects to treatment, including access to care, and the location, frequency, intensity and continuity of care. Prompt access to care was described as very important but did not always happen. Intensive support early on made a huge difference to parents. Those that had the support of a crisis team at the beginning of treatment found this immensely helpful. Many parents wanted very practical advice on how to respond to the young person, and appreciated information sheets and web resources when these were available. The main psychological treatments for the young people described by parents were cognitive behavioural therapy and dialectical behaviour therapy. These were both seen as offering the young person practical tools to manage. There were mixed reactions to the use of medication, some parents finding this helpful for the young person, others feeling that it made things worse.

Full article is available to be viewed online at https://bit.ly/2l42ePO
PAPYRUS
- working for prevention of suicide in young people

By Rosemary Vaux, Press Officer, PAPYRUS

In the UK suicide is the biggest killer of young people – male and female - under 35. In 2015, 1,659 young people took their own lives. This equates to over four per day. National charity PAPYRUS, working for prevention of suicide in young people, believes this is just the tip of the iceberg.

Every year many thousands more attempt or contemplate suicide, harm themselves or suffer alone, afraid to speak openly about how they are feeling. PAPYRUS strongly believes that many young suicides are preventable.

The charity was founded in 1997 by a group of parents who had lost a child through suicide: parents driven to prevent other families enduring the same devastation. It draws from the experience of many who have been touched personally by young suicide across the UK and speaks on their behalf in our campaigns and in our endeavours to save young lives.

The professionals in the mental health sector are well equipped with the knowledge and skills to deal with young suicidal people. But the demand is placing considerable strain on services and it can be extremely stressful. Recently chief executive of Papyrus, Ged Flynn, wrote to NHS bosses to ask them to inform their staff that they will be supported by their trust, if they make a best interests decision, to share with appropriate others, information about a patient’s suicide risk, in order to preserve life.

PAPYRUS can help. The charity provides practical help to anyone concerned that a young person may be at risk of killing themselves. It provides guidance for support groups. Its HOPELINEUK helpline service is staffed by suicide prevention advisors. The team also provides advice to teachers, doctors and other health professionals as well as young people and concerned others. Contact cards are available at: https://bit.ly/2y4bhJT

PAPYRUS believes many young suicides can be prevented and that suicide is everyone’s business – it should be a concern for the whole community. But how do we know if someone is thinking about suicide? No matter what your role is, if you are worried about someone and think they could be suicidal, ask them. We cannot be certain without asking, but there are often signs we can look out for. The charity’s ‘Spot the signs’ campaign, encourages people to ask directly. https://bit.ly/2sPy2V9

PAPYRUS also provides training in suicide awareness and intervention skills, working with many sectors: community and business groups, schools and colleges, NHS professionals are included. It campaigns on a range of young mental health issues and influences national policy.

Children and young people today can be under a lot of pressure. Suicides by children are alarmingly high. 200 school children take their own lives every year. A major PAPYRUS campaign for 2018 is #ClassOf2018 a key component of which is a new guide for teachers and staff: ‘Building Suicide-Safer Schools and Colleges. It is free to download https://bit.ly/2HFZ0er or purchase print copies.

For more information and guidance visit: www.papyrus-uk.org

Machine learning approach predicts suicide risk

Suicide attempt rates are highest in adolescents, and suicide is the second leading cause of death in this population. Suicide prevention is currently hindered by suboptimal methods to determine those at risk. Now, a study has evaluated the performance of machine learning on routinely collected electronic health records, as a possible approach to accurately screen and detect adolescents at risk of making suicide attempts. The researchers used a dataset from 1998-2015 including patients <18 years with self-injury medical claims. Self-injury incidents were interrogated by suicide experts and classed as either “other self injury” (OSI; n=476) meaning evidence of harm without suicide intent, or as a “nonfatal suicide attempt” (n=974) and analyzed together with a general hospital control group (n>32,000). The machine learning approach could accurately predict risk of suicide attempt (Area Under the Curve = 0.8-0.9), especially when comparing affected patients to general hospital controls. This predictive approach required no additional clinical assessment, to achieve good performance, as far as 2 years in advance of nonfatal suicide attempts. The researchers note that much work now remains to externally validate the approach and develop clinical support tools. However, machine learning may become a broad, scalable screening method to identify adolescents at risk of nonfatal suicide attempts where a common data source, such as an electronic health record, is available.


Glossary:
Machine learning: a computer-based method in which statistical techniques permit computers to progressively improve performance (learn) on a given task without being explicitly programmed

Area Under the Curve (AUC): A measure as to which model most accurately predicts an outcome; an AUC of 1 means that the prediction model is perfect whereas an AUC of 0.5 means that the prediction model is worthless

Violent self harm may predict subsequent suicide

Researchers in Sweden have found that violent methods of self-harm requiring hospitalization may indicate high risk of future suicide in adolescents and young women. The researchers searched five, Swedish hospital registers and recorded information on events of non-fatal self-harm between years 2000 and 2009 in patients aged 10-24 years. They categorized methods of self harm as: “poisoning”, “cutting or piercing”, “violent methods” (including gassing, hanging, strangulation, suffocation, drowning, firearm/explosives, and jumping from a height), “other” or “multiple”. They identified >24,000 individuals (mean age 19.3 years, ~69% women) with >38,000 acts of non-fatal self-harm treated in specialist (non-psychiatric) health-care settings. A total of 306 suicides were identified during follow-up, the majority of which occurred in patients aged 18-24 years. Cutting and poisoning were the most prevalent methods of self harm that required inpatient care. However, among 10-17 year olds, a violent method of self harm registered in inpatient care was associated with ~8-fold elevated risk of suicide compared to self-poisoning methods. In women aged 18-24 years, both violent methods of self harm and cutting were associated with ~4-fold increased risk of suicide compared to poisoning. The researchers conclude that adolescents requiring inpatient care due to violent methods of self harm, or young women using either violent methods or cutting, may be at a particularly high risk of future suicide attempts.


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