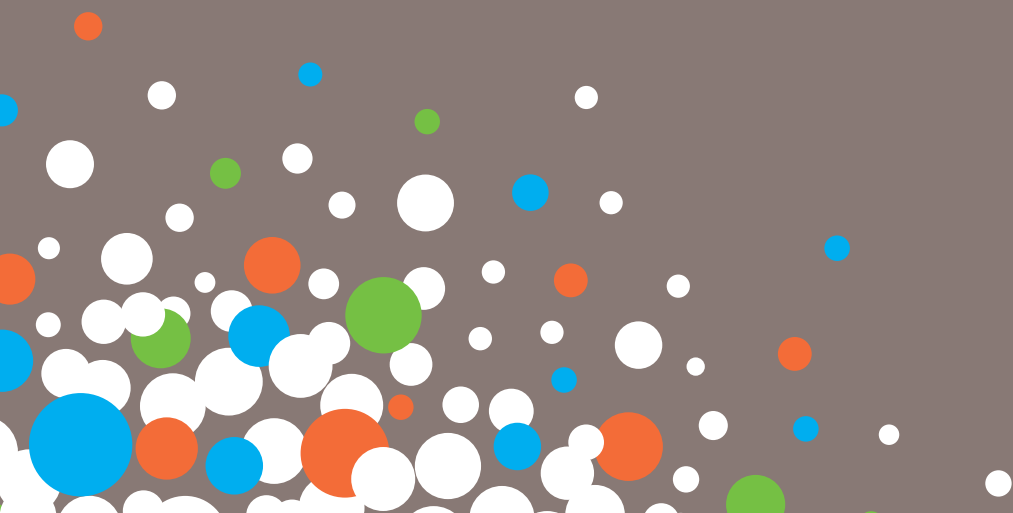




The National Centre of Excellence
in Youth Mental Health

Looking the other way

Young people and self-harm



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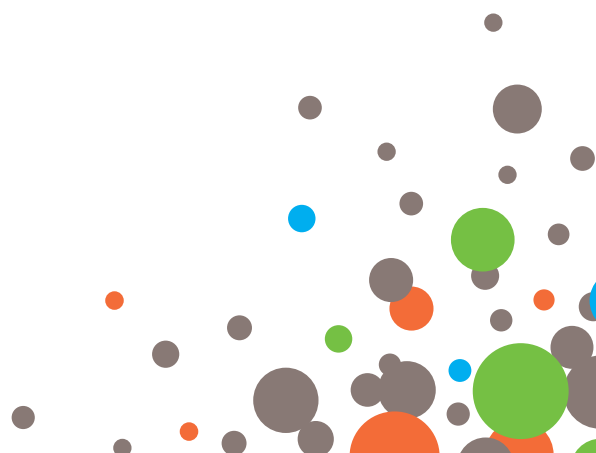
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Acronyms

DSH	Deliberate Self-harm
NSSI	Non-suicidal Self-injury
SI	Suicidal Ideation
ATSI	Aboriginal and Torres Strait Islanders
ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
GP	General Practitioner
MBT-A	Mentalisation-based Therapy for Adolescents
DBT-A	Dialectical Behaviour Therapy for Adolescents
COAG	Council of Australian Governments
NICE	National Institute for Health and Clinical Excellence
ATAPS	Access to Allied Psychological Services
RANZCP	Royal Australian and New Zealand College of Psychiatrists
BPD	Borderline Personality Disorder
LGBTQI	Lesbian, Gay, Bisexual, Transgender, Queer, and Intersex Young People
GBP	Group-based Psychotherapy

Executive summary

Self-harm among young people in Australia is a significant public health issue, yet one that, like the behaviour itself, remains covered and misunderstood. Even with the increased leadership, focus and investment in youth mental health and suicide prevention over the past decade, the extent and impact of self-harm remain largely neglected. As a result, evidence for effective prevention and early intervention approaches for self-harm is severely lacking.

Meanwhile, young people who self-harm continue to experience terrible stigma and damaging responses from the wider community including health professionals. The resultant harm from uncompassionate, unhelpful and often dismissive responses is far greater than the injury they have inflicted upon themselves. It makes them feel worse about their situation and it deters them from seeking help in the future, increasing the likelihood of future adverse outcomes.

Self-harming behaviours need to be understood as often occurring in response to intense emotional or physical pain and psychological distress, including overwhelming negative feelings, thoughts or memories, and a sense of hopelessness. For some, self-harming can have an addictive element, possibly due to the natural release of endorphins in response to pain, and possibly due to a lack of alternative coping strategies. In some (but not all) instances, self-harm is accompanied by suicidal thoughts.

Rather than dismiss self-harm as a 'cry for attention' there is an urgent need for strategies that can promote community awareness and understanding of self-harm. Strategies are also needed to respond to self-harm quickly and effectively by addressing the serious underlying issues that negatively impact on a young person's mental health and wellbeing. Rather than turn our back on the issue we need to look the other way and respond.

Prevalence

Little data are available regarding the prevalence of self-harming behaviours in the community, largely due to the lack of national data collection mechanisms. What we know about the prevalence of self-harming among young people in Australia can be derived from hospital separation data and some Australian and international community surveys. This includes that:

- There is an upward trend for young people being hospitalised for self-harm (Australian Institute of Health and Welfare, 2014);
- One in ten Australian adolescents have engaged in self-harming behaviour (Lawrence, 2015);
- Young women aged 15-19 years account for a significant proportion of those hospitalised (Australian Institute of Health and Welfare, 2014);
- The majority of hospitalisations are for self-poisoning, however the majority of reported self-harm in the community is self-cutting (Madge et al., 2008); and
- The lifetime community prevalence rates of self-injury among Australian young adults aged 20-24 years is approximately 20 per cent (Martin et al., 2010).

“ It is really unhelpful when I am refused medical treatment for my self-harm, just because I did it to myself. I don't need to be judged. I don't need to be told that there is no point in helping me because I am just going to self-harm again.

However, this only provides a snapshot of the real picture of self-harm among young Australians. Due to the stigma associated with self-harm, many young people do not present for help or disclose their behaviour. For particular groups, including young women, Aboriginal and Torres Strait Islander (ATSI) young people and young people with mental illness, the rates are much higher. For example, the rates of self-harm hospitalisation for 15–24 year old Aboriginal and Torres Strait Islanders is over five times that of non-Indigenous young people in the same age group (Dudgeon et al., 2014).

Improved data collection and monitoring, along with a national research agenda to address the considerable knowledge gaps, is crucial to: building our understanding of the nature and prevalence of self-harm; improving our responses; and to determine the effectiveness of policy, program or service interventions into the future.

Impact

Without help and early intervention, young people who self-harm are at an increased risk of a number of adverse outcomes including severe injury and unintended death, as well as an elevated risk of premature death in the future, including from suicide (Fergusson et al., 2005) and car accidents (Martiniuk et al., 2009). Family members are also affected, reporting lower levels of their own mental health and wellbeing, reduced confidence in parenting efficacy, high levels of distress and a lack of support (Morgan et al., 2013).

Help-seeking barriers and damaging responses

A high percentage (possibly more than 50 per cent) of young people who self-harm never seek help (Michelmores and Hindley, 2012) and go to lengths to hide their behaviours. Significant barriers to help-seeking for young people and their families exist, which too often include negative responses from others, feelings of shame and guilt and a lack of awareness regarding just how serious self-harming behaviours can be.

Self-harm is highly stigmatised and not well understood in the community. Young people report that they are actively encouraged to conceal the behaviour and that there is reluctance among others to discuss it. School staff aware of self-harm and contagion effects among students also report feeling they lack the understanding and skills to respond. As a result there is a need to develop evidence-based guidelines and fund programs which support schools respond effectively to young people engaging in self-harming behaviours.

Often negative or trivialising responses come from the professionals in front-line services from whom young people, in their most vulnerable moments, are seeking compassionate and helpful responses. Once bitten by a poor experience of help-seeking, young people who self-harm are unlikely to seek out support a second time.

This situation is unacceptable and requires urgent attention and action from all jurisdictions and service providers to develop national standards of appropriate and acceptable responses to self-harm. Once developed, these standards need to be supported and reinforced through

regular workforce development and reporting. Young people who self-harm and their families should be involved, front and centre, in the design and development of these standards and in the associated training of health service professionals.

Further, young people who do seek help for self-harm, particularly those without a diagnosed mental illness, find it difficult to access services. While publicly funded mental health care is available, many young people do not access referral points (for example, through GPs), and other youth mental health services are often too stretched to respond, or have difficulty engaging high-risk groups. Inadequate discharge from emergency department and inpatient care to step-down community-based care also creates a barrier to early and effective treatment responses. As such, there is a need to invest in early intervention responses that provide high quality integrated stepped care and treatment.

Evidence-based responses

Evidence of effective interventions for self-harming behaviours is limited. Within clinical interventions, research has found some forms of psychosocial therapy do appear to show promise in reducing the frequency of self-harm including Dialectical Behaviour Therapy for Adolescents (DBT-A) and Mentalisation-Based Therapy for Adolescents (MBT-A) (Hawton et al., 2015, Ougrin et al., 2015). The challenge is that these specialised interventions (such as DBT-A) require a considerable amount of training delivered only in the United States and the interventions themselves are often very intensive and costly, limiting access for many young people.

The complex nature of suicide-related behaviours and self-harm requires the inclusion of interventions that have a broader focus than self-harm alone such as those that address underlying mental ill-health, including anxiety, distress and depression. Many suicide prevention interventions delivered in schools and community-based settings may have had an impact on self-harm, particularly where there are shared modifiable risk factors between suicide-related behaviours and self-harm. Unfortunately in the majority of cases, studies of these interventions do not include self-harm as an outcome measure. Requiring the inclusion of outcome data for self-harm in other program trials and studies of youth mental health interventions (e.g., for mood disorders, personality disorders, anxiety disorders) across all settings will result in a significant development of the evidence base for effective self-harm interventions.

Let's talk about it

In the preparation for this paper, Orygen consulted a number of young people with a lived experience of self-harm. Also consulted were family members and a number of service providers and clinicians who respond to self-harm among young people, including young people with a mental illness.

A key theme to emerge from these consultations was the need to break down the taboo associated with self-harm and start discussing it. Emerging evidence indicates there is no risk in engaging young people who self-harm in a discussion about the behaviours (Muenlenkamp, 2010). Indeed it is the reluctance by so many in the community to talk to young people who are self-harming that is likely to be causing the greatest injury.

Researchers, service providers and policymakers can lead these conversations and take a further step to engage young people who self-harm and their families in the development of technologies, programs, interventions, research and training. Given the current taboos around the topic and the highly vulnerable and marginalised nature of many young people who engage in the behaviours, this will require the commitment and resources to develop trusting relationships with young people and their families, facilitate appropriate and helpful conversations, support culturally appropriate and community led interventions and a genuine focus on young people.

Summary of future directions

National Action

As identified by the National Mental Health Commission Review, 2014, and subsequently committed to by the Australian Government, a renewed National Suicide Prevention Strategy is required to respond to the increased risk of suicide in young people who engage in self-harming behaviours. The Council of Australian Governments (COAG) should establish a national cross-sectorial body to develop a national and systemic response to self-harm among young people.

Better standards of care

National standards of care and training for professionals (clinical and non-clinical) responding to self-harm are required.

Training should then be delivered every two years to all local health organisations, including general practice, mental health nurses, emergency

departments, ambulance staff, police, community managed mental health services and community and acute mental health clinical services.

Improved data collection

Address the current lack of data and data collection systems in Australia for self-harm by: 1) taking the sentinel data collection system currently operating in Newcastle and replicating it in other sites, 2) by including questions relating to self-harm in relevant population-based health surveys and 3) ensuring the ATAPS minimum data set captures self-harm related information including: principal diagnosis, treatment duration and outcomes.

Trial early intervention responses

From 2016-2017 trial and evaluate an enhanced early intervention response for all presentations of self-harm among young people. This should be conducted across 10 headspace centres over a two-year period.

Support schools to respond

Develop evidence-based guidelines for responding to self-harm in schools. Investigate incorporating conversations and resources about self-harm into school-based mental health programs, fund programs that build the capacity of school staff to respond to incidences of self-harm in students and raise awareness in school communities about the nature and impact of self-harm (including contagion).

Improve access to e-mental health

A centralised registry is required for all e-mental health technologies providing interventions for self-harm with an interface that is accessible by clinicians, young people and their families.

Orygen, the National Centre of Excellence in Youth Mental Health, in partnership with the Young and Well Cooperative Research Centre, should also establish a duty-of-care policy and practice framework to respond to the medico-legal issues in responding to young people's mental health needs through online platforms (including the 'pointy' end of self-harm and suicidality).

Involve young people who self-harm in the development of effective responses

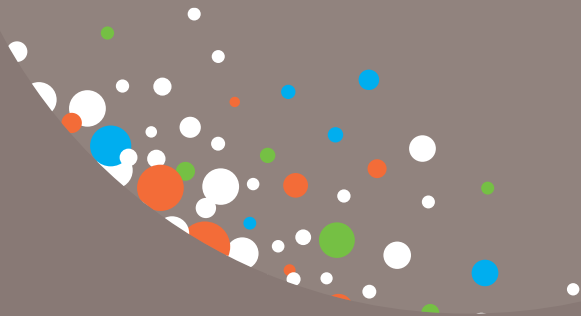
Address stigma and misconceptions about self-harm through involving young people with a lived experience of self-harm and their families as key partners in research, policy, service system responses and program development.

Respond to research gaps

Address critical gaps in research on self-harm in Australian young people. Addressing these gaps should be prioritised through: 1. Orygen, The National Centre of Excellence in Youth Mental Health, (as recommended in the Children's Rights Report, 2014); and 2. A National Health and Medical Research Council targeted research call.

.....

It is of great concern
that many young people
in Australia are experiencing
high levels of stress.



Section 1

Self-harm and Young People— What do we know?

Self-harm refers to a range of behaviours (including self-poisoning and self-injury) through which an individual directly causes harm to her or himself, irrespective of the type of motive or the degree of suicidal intent.

While the reasons behind self-harm are diverse, for the most part, the behaviour occurs in response to intense emotional pain and psychological distress, including overwhelming negative feelings, thoughts or memories, and a sense of hopelessness. For some, self-harming can have an addictive element, possibly due to the natural release of endorphins in response to pain, and possibly due to a lack of alternative coping strategies. In some (but not all) instances, self-harm is accompanied by suicidal thoughts.

Self-harming behaviours often begin during adolescence, a time when significant neurological and biological changes take place alongside emerging experiences of study and work pressure, romantic and sexual relationships and increasing independence and responsibility. Adolescence is also a peak period of first onset for mental ill-health (Kessler et al., 2007) and increased risk-taking behaviours, as described in Box 1.

For some young people a series of negative events or stressors experienced over a period of time may lead to them to engage in self-harming behaviours (Fox et al., 2004) often in lieu of alternative, healthier coping strategies. It is of great concern then that many young people in Australia are experiencing high levels of stress. In its most recent national survey of 13,600 young Australians aged 15–19 years, Mission Australia reported that 41.6 per cent of respondents identified ‘coping with stress’ as their number one issue of concern (Fildes, 2014). Further, an analysis of the national youth survey data in 2013 found young people with a probable serious mental illness were two and a half times more likely to indicate that coping with stress was a major concern (Ivancic et al., 2014).

“ The reasons I self-harm differ every time. It could be an impulsive reaction to something, in which case I self-harm before I even have time to think about why. I have also self-harmed because I felt that I had to, for no particular reason, it just felt like it had to do it, an intrusive thought. I’ve self-harmed to be hurt or sick because I felt that I needed to, or I felt that I needed to be punished and deserved it. And then there are times when the self-harm is an attempted suicide.

Young person

BOX 1. DISCUSSION

Are risk-taking behaviours a form of self-harm?

Risk-taking behaviours are often described as a form of self-harm (Wood, 2009). These behaviours may include drug and alcohol misuse, risky driving behaviour, unsafe sex or train surfing (headspace youth mental health foundation)

As with self-harm, increased risk-taking often emerges in adolescence, with young men engaging in risk-taking behaviours more than young women (Vrouva, Fonagy et al. 2010). Data indicate that young males are three to four times as likely as young females to be hospitalised for transport accidents, falls and assaults, while young females are three times more likely to be hospitalised for intentional self-harm (Australian Institute of Health and Welfare, 2008b).

While this paper will focus on young people engaging in self-harm (i.e., self-injury and self-poisoning) as distinct from risk-taking behaviours, there is a strong association between risk-taking and self-harm (Vrouva, Fonagy et al. 2010). As such, further research into the functions of self-harm needs to consider the prevalence, mechanism and impact of risk-taking behaviours, particularly in young males.

Each instance of self-harm may have a different motivation even within one individual. While some instances of self-harm are characterised by suicidal thinking, self-harm is often not an attempt at suicide: in some instances, young people engage in self-harm rather than ending their life (Klonsky, 2007). For example, young people consulted for this paper described many different purposes for their self-harming:

“ I felt disconnected from reality and when I would disassociate I would sometimes (self-harm) to feel alive...like a splash of water in the face to bring you back to reality.

“ Sometimes I want to self-harm, sometimes I want to die.

“ When you are feeling that bad it can be a better option than doing something more drastic.

The following outlines the definitional scope for this paper and describes what is known about:

- The prevalence of self-harm through data and research, both in the general population and in high-risk groups of young people;
- Risk and protective factors for self-harm; and
- The impact of self-harm on young people, their families and the broader community.

Definitions

A number of different terms are used when referring to self-harm. The term 'deliberate self-harm' (DSH) is used predominantly in Australia as well as within European countries (Muehlenkamp et al., 2012). The Royal Australian and New Zealand College of Psychiatrists (RANZCP) also use this term.

However, in the United Kingdom, the National Institute for Health and Clinical Excellence (NICE) asserts that

“ ...the word 'deliberate' is no longer preferred...[as]...those who harm themselves during a dissociative state often describe diminished or absent awareness of their actions at these times.

NICE, 2012, p.14

Meanwhile, the latest revision of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, the DSM-5, proposes diagnostic criteria for two forms of self-harming behaviour as conditions for further study: 'suicide-related behaviour disorder' (i.e., attempted suicide) as distinguished from 'non-suicidal self-injury' (NSSI), although many researchers and clinicians believe this categorisation to be artificial and potentially misleading (Kapur et al., 2013).

These definitional issues present challenges for the comparison and translation of research and evidence-based findings into real world, policy and program applications (Australian Human Rights Commission, 2014a). For the purposes of this paper, the simplified term 'self-harm' will be used to include both self-poisoning and self-injury, regardless of intent. However, it is recognised that there are several key terms found in the literature and referred to in this paper, each reflecting nuances in the behaviour and the intent behind it. These are presented in Box 2.

BOX 2**Key terminology****Deliberate or intentional self-harm**

Refers to self-poisoning and self-injury for which there may be suicidal intent, no suicidal intent, or mixed motivations.

Self-poisoning

Ingesting or inhaling an amount of a substance (whether it be for human consumption or not) associated with significant potential to cause harm. Self-poisoning episodes may be accidental or deliberate, fatal or nonfatal (Camidge et al., 2003).

Self-injury

The act of deliberately injuring one's own body which can include actions such as cutting, scratching, hitting and burning tissue on the body.

Suicide

The act of self-harm, which intentionally causes one's own death.

Suicide attempt

A deliberate self-destructive act where there is a clear expectation of death.

Suicidal ideation

Thoughts of engaging in behaviour intended to cause one's own death (Nock et al., 2008), which may encompass voices, images, beliefs or cognitions (Crosby, 2007).

Suicide behaviour disorder

Proposed DSM-5 diagnosis that would be assigned to an individual who has made a suicide attempt within the past two years.

Non-suicidal self-injury

Proposed DSM-5 diagnosis referring to deliberate injuring of oneself without suicidal intent, and does not include self-poisoning. The most common form of NSSI is self-cutting, but other forms include burning, scratching, hitting, intentionally preventing wounds from healing, and other similar behaviours.

Parasuicide

Originally defined by Krietman (Krietman et al., 1969) as self-harm and attempted suicide irrespective of suicidal intent. The term has been more recently used in the United States when referring to an apparent attempted suicide without suicidal intent (Linehan et al., 1991), and has largely fallen out of use in recent years.

Self-harm data and prevalence

Accurate information about the true extent and pattern of self-harm is difficult to obtain as the majority of young people who self-harm actively hide their injuries and never seek help from health services.

Whole-of-population data

The Australian Bureau of Statistics (ABS) does not collect information on self-harming behaviours in the Australian population, except as the cause of death, while the Australian Institute of Health and Welfare (AIHW) collects data only on intentional self-harm that results in hospitalisations. Neither agency collects community data on self-harm through population health and/or wellbeing surveys. At present, best prevalence estimates can be derived from international and Australian research studies and from the AIHW hospitalisation data.

Community prevalence

It is possible to make reasonable community prevalence estimates based on research evidence and self-report data from Australian and international studies. For example, the report on the second Australian Child and Adolescent

Survey of Mental Health and Wellbeing found that one in ten Australian adolescents had engaged in self-harming behaviour and that among young women aged 16-17 years, 22.8 per cent had self-harmed in their lifetime (Lawrence, et al., 2015).

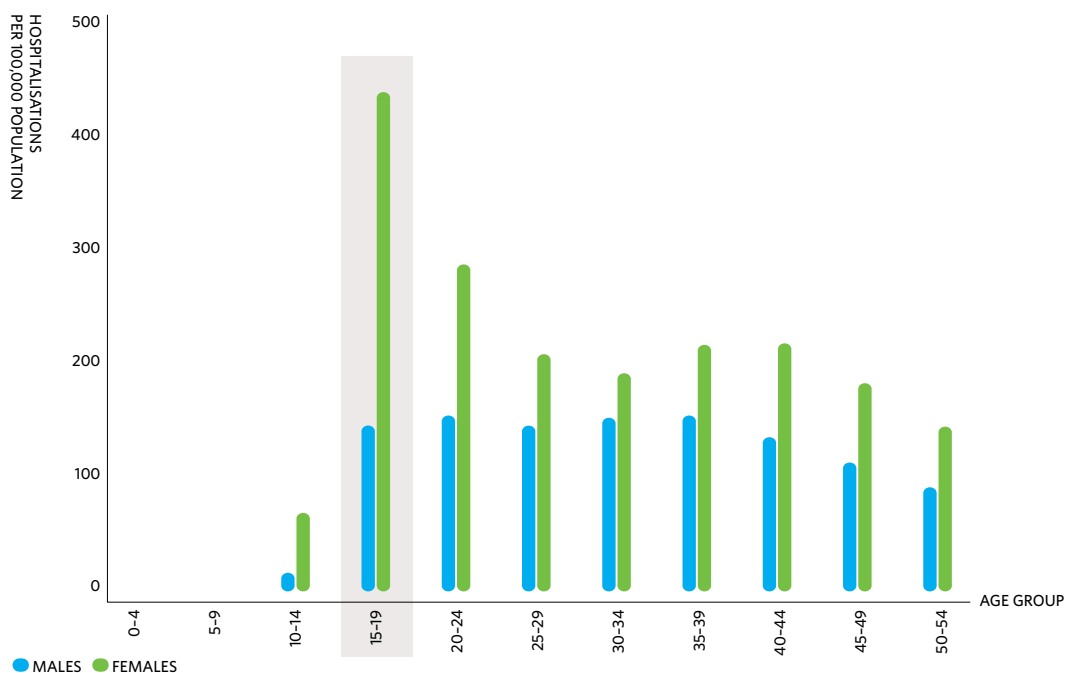
These data are consistent with:

- an earlier Australian community survey on self-injury which found 24.4 per cent of young females aged 20-24 years and 16.6 per cent of young females aged 15-18 years reported they had self-injured in their lifetime. Lifetime prevalence rates in males aged 20-24 years was 18.1 per cent and 11.6 per cent for 15-18 year olds (Martin et al., 2010); and
- International data, which suggest a lifetime prevalence of between 16.1 to 18.0 per cent for NSSI (Swannell et al., 2014, Muehlenkamp et al., 2012).

Hospitalisations

Another indication of self-harm rates and trends in Australia can be obtained from hospital admissions data (which do not include emergency department presentations). In 2013-14 just over 9,000 young people were hospitalised for self-harm in Australia (Australian Institute of Health and Welfare, 2015). Earlier data sets providing a breakdown of method, age and gender show the majority (79 per cent) of hospitalisations

FIGURE 1. INTENTIONAL SELF-HARM HOSPITALISATION RATES, BY AGE GROUP AND SEX, AUSTRALIA, 2010-11
Source: AIHW (2014).



are due to intentional self-poisoning (5,769 hospitalisations), followed by self-cutting (15 per cent or 1,122 hospitalisations) (Australian Institute of Health and Welfare, 2008a). Rates for males and females hospitalised due to intentional self-harm were highest for 15–24 year olds in 2010–11 (29 per cent), and there was an upward trend in rates for both males and females aged 15–19 years between 1999–00 to 2011–12 (Australian Institute of Health and Welfare, 2014). Figure 1 also shows a marked spike in hospitalisations for self-harm among young women aged 15–19 years.

It is, however, incorrect to assume that hospital admissions data reflect either the extent or nature of self-harm in Australia. Hospitalisation rates for self-harm also reveal only the very tip of the iceberg, as most instances of self-harm do not require medical treatment and many presentations to emergency departments do not result in a hospital admission (Kapur et al., 2013). As identified in the National Mental

Health Commission Review, there is a lack of data collection on emergency department presentations by people with suicide-related behaviours (National Mental Health Commission, 2014), including self-harm.

Further, while Australian and international hospital data indicate most hospital admissions are for episodes of self-poisoning (particularly overdosing on analgesics such as paracetamol) (Hawton et al., 2012a), in the community the situation is reversed and self-cutting and other forms of self-mutilation are reported more frequently than self-poisoning (Madge et al., 2008). A recent report by Turning Point on self-harm and mental-health related ambulance attendances in 2013 highlighted the extent of self-harm being responded to by paramedics. It also reported that the majority of attended self-injury cases were for cutting injuries and across four jurisdictions (VIC, NSW, ACT and QLD) the median age of the patient was between 23–25 years (Lloyd et al., 2015).

CASE STUDY 1

Sentinel self-harm data monitoring systems used in the United Kingdom

Oxford Monitoring System

The Oxford Monitoring System was established in 1976 to collect demographic and clinical information on all patients presenting to the accident and emergency department of the John Radcliffe hospital, Oxford, following an episode of suspected self-harm.

Data from the Oxford Monitoring System has been used to argue for legislative changes in the availability of common substances used in self-harm episodes. For example, following an almost two-fold increase in the use of paracetamol in episodes of self-poisoning over an 11-year period, data from this system was used to introduce legislation to limit the maximum pack size for over-the-counter sales of paracetamol. This resulted in a significant decrease in rates of both suicides involving paracetamol or its compounds and in liver transplants (for paracetamol-induced hepatotoxicity) (Hawton et al., 2013).

Multicentre study based at six hospitals across Oxford, Manchester and Leeds

Running parallel to the Oxford Monitoring System, the Multicentre Study of Self-Harm was launched in 2000 as a collaboration between one hospital in Oxford, two in Leeds and three in Manchester. These hospitals were selected to provide greater ethnic and socio-economic diversity and to more closely mirror the demographics of the UK population (Hawton et al., 2007). Information is collected as per the Oxford Monitoring System, and data can also be linked to information on causes of death through the Central Health Register Inquiry System in England and Wales.

Data from the Multicentre Study of Self-Harm has been used to explore trends and changes in rates of self-harm over time (Bergen et al., 2010) and trends in rates of mortality from any cause following self-harm (Bergen et al., 2012). Data from the Multicentre Study of Self-Harm has also been used to evaluate the impact of treatment initiatives. Following the introduction of guidelines for the management of self-harm, for example, data from the Multicentre Study of Self-Harm found that the provision of a full psychiatric assessment following an episode of self-harm was associated with a 40 per cent reduction in risk of further episodes of self-harm (Kapur et al., 2013).

Developing similar linked systems (building upon the Newcastle model) across other hospitals in Australia (as per the multicentre study in the United Kingdom) selected to mirror the demographics of the Australian population could, at a relatively low cost, support the development of a much-needed national dataset of the prevalence of, and characteristics associated with, self-harm.

Opportunities exist to enhance and extend routine self-harm data collection and monitoring systems in hospitals to include ambulance and emergency department presentations and collect detailed clinical and demographic information in an ongoing way. The Turning Point project also aims to develop a population level case monitoring system for self-harm to contribute to an ongoing Australian surveillance system (Lloyd, 2015). Implementing and improving these systems will lead to better care for people who have self-harmed, while linking to research databases would then enable the impact of policy, program and clinical interventions to be better tracked, compared and reported over time.

Sentinel data systems for monitoring trends in self-harm are not widespread: however, there are systems operating in Christchurch, New Zealand (Beautrais et al., 1994), Newcastle, Australia (Whyte et al., 1997), Mysore, India (Rajendra et al., 2015) and in the United Kingdom (described in further detail in Case Study 1).

Australia's only established sentinel data system is in Newcastle, New South Wales. The Hunter Area Toxicology Service is a regional referral service for all cases of self-poisoning and covers an adolescent and adult population of around 500,000. As part of this service, all patients presenting to the service following an episode of self-poisoning are formally admitted by a clinical toxicologist and assessed by a psychiatry team. While admitting every presentation may appear costly, this service has been shown to both reduce the length of hospital stays and overall costs (Whyte et al., 1997). The system also provides a database for monitoring representations of self-poisoning and changes in suicidality and/or psychiatric risk factors that may assist in recommending approaches for future interventions (Carter et al., 2006), and provides longitudinal data to understand and compare outcomes over time (Hiles et al., 2015).

The Children's Rights Report, published following a national inquiry into self-harm and suicide by the National Children's Commissioner (Australian Human Rights Commission, 2014a) identified that the lack of data collection and monitoring was a significant obstacle to effective research and an ongoing barrier to building an evidence base upon which to build policy and program responses for suicide and self-harm in children and young people. Sentinel systems have been shown to provide timely reports of changes in rates or characteristics of self-harm for the purposes of planning and evaluation of national service provision (Hiles et al., 2015). Developing similar linked systems (building upon the Newcastle model) across other hospitals in Australia (as per the multicentre study in the United Kingdom) selected to mirror the demographics of the Australian population could, at a relatively low cost, support the development of a much-needed national dataset of the prevalence of, and characteristics associated with, self-harm.

High risk/ high prevalence population groups

While self-harm in young people remains a significant problem in the general population, there are specific groups of young people for whom the prevalence of self-harm is disproportionately high. These include young women; young people diagnosed with a mental illness or personality disorder; young people from ATSI backgrounds; young people in immigration detention or juvenile justice facilities; young people in out-of-home care; young people living in rural and remote areas; and lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI) young people.

Young women

In most countries, including Australia, self-harm is more common among females than males. The AIHW reported that in 2011-12, intentional self-harm was the cause of 7,154 hospital separations for females aged 15-24 years compared to 2,855 hospital separations for males of the same age (i.e., hospitalisation rates were almost 2.5 times higher in females) (Australian Institute of Health and Welfare, 2014). One survey conducted in 41 schools in the United Kingdom found that females are four times more likely to report engaging in self-harming behaviours than males (Hawton et al., 2002). Studies also suggest an increased risk of self-harming behaviours in girls at the onset of both puberty and sexual activity (Moran et al., 2012).

Young people with a mental illness or at risk of a mental illness

International data suggest that mental illness may be the strongest risk factor for suicide related behaviour (including self-harm) in young people (Christiansen et al., 2012). Self-harm in adolescents has been found to be strongly associated with symptoms of general psychopathology such as depression, anxiety and aggression (Fliege et al., 2009) as well as anti-social behaviour and substance use (particularly alcohol use, cannabis use and cigarette smoking) (Moran et al., 2012).

Clinically, self-harm is found to occur in the context of a wide range of diagnosable mental disorders such as post-traumatic stress disorder, mood and anxiety disorders, eating disorders and first-episode psychosis. Self-harm has therefore been considered to be an informal indicator of the level of distress or severity of illness, as opposed to being a central feature of the particular disorder, or a disorder in itself.

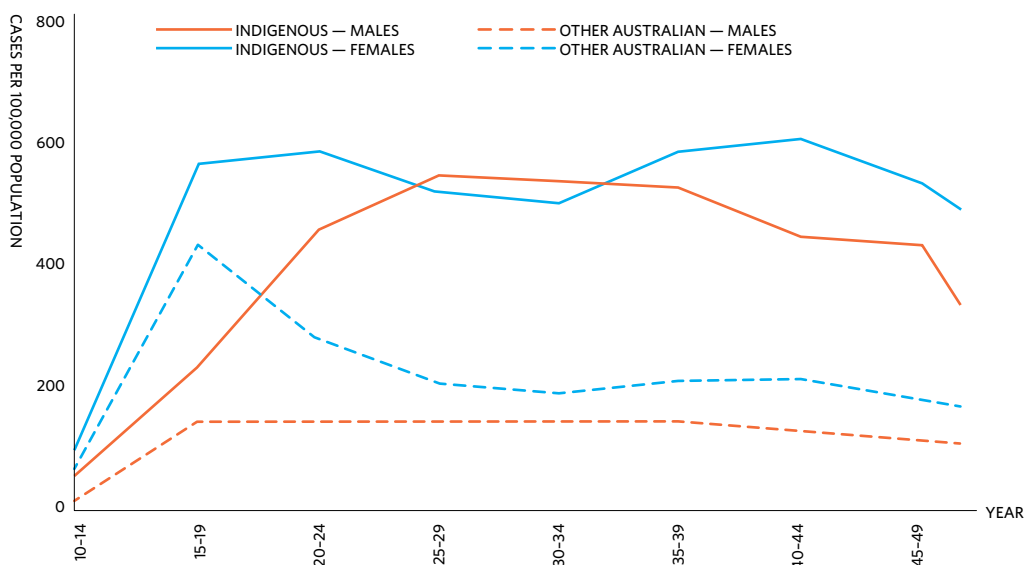
Young people with personality disorders

Borderline Personality Disorder (BPD) has a unique relationship with self-harm (Brickman et al., 2014). In contrast to Axis One disorders such as depression or anxiety, a recurrent pattern of self-harm and/or suicide-related behaviour is a core feature of BPD; indeed it is one of the nine criteria that is used to make the diagnosis (American Psychiatric Association, 2013), and the most common criterion met.

International data suggest that young people with BPD features are at an increased risk of self-harm compared to their general population counterparts (You et al., 2012). In an Australian study of adolescents with two or more BPD features, 91 per cent had self-harmed at least once, and 53 per cent were self-harming recurrently (Chanen et al., 2009). Another study (Andover et al., 2005) demonstrated that the

FIGURE 2. AGE SPECIFIC RATES OF INTENTIONAL SELF-HARM CASES BY SEX AND ATSI IN 2010-11

Source: (Pointer, 2013)



Note: Exclude data for Tasmania and the Australian Capital Territory

presence of even a few BPD features was a better indicator of self-harm among college students than the presence of depressive or anxiety symptoms. The presence of BPD features also appears to be the best predictor of whether a young person will continue to engage in self-harm for longer than one year (Wilcox et al., 2012).

ATSI young people

ATSI young people are disproportionately represented in both self-harm and suicide statistics in Australia. Rates of intentional self-harm among young Indigenous people aged between 15 and 24 years are over five times that for non-Indigenous young people (Dudgeon et al., 2014) and admissions to hospital for intentional self-harm increased for ATSI youth by 48 per cent between 2004-05 and 2012-13 (Steering Committee for the Review of Government Service Provision, 2014). Figure 2 highlights that rates of hospitalised self-harm among indigenous populations remain higher than that of the general population across all age groups from 15-19 years until mid-adulthood.

Compounding the risk for ATSI young people is their over-representation in both juvenile justice (Heffernan et al., 2014) and child protection populations (Tilbury, 2009), where there is also a high prevalence of self-harming behaviours.

Young people in immigration detention

In 2014 there were 800 children and young people under the age of 18 in Australian immigration detention facilities (Australian Human Rights Commission, 2014b). The inquiry by the Australian Human Rights Commissioner, and subsequent news coverage in the latter half of 2014,ⁱ highlighted the problem of self-harm in immigration detention facilities. Data from 2003 suggests that at that time, the rate of self-harm in young male detainees was almost three times that of the rate in the communityⁱⁱ (Dudley, 2003). There have been significant population shifts in the numbers of people in immigration detention over recent years, due in part to off-shore processing and the 'turn back the boats' policy: however, reliable information about self-harm in immigration detention remains sparse and the prevalence of DSH in these young people is not routinely monitored (Procter et al., 2013).

Young people in juvenile justice facilities

Self-harming behaviours are prevalent among young people in juvenile justice settings (Casiano et al., 2013). Young offenders serving custodial sentences appear to be particularly likely to engage in self-harm as compared to their counterparts serving community-based sentences (Borschmann et al., 2014).

Young people in out-of-home care

International data suggest that young people in out-of-home care are between four and five times more likely to be hospitalised following a suicide attempt as compared to their peers in the general population (Vinnerljung et al., 2006). Self-harming behaviour may be particularly common in children who move placements frequently (i.e., three or more times over a 12-month period) (Beck, 2006). One New South Wales longitudinal study into young people in out-of-home care found that 71 per cent of young people interviewed four to five years after leaving care reported having thought about, or acted upon, suicidal thoughts at some stage before or after leaving care (Cashmore, 2007).

Young people in rural areas

Young people aged 15-24 years living in very remote areas were hospitalised for intentional self-harm at twice the rate of young people living in major cities in 2005-06 (Australian Institute of Health and Welfare, 2008a). Young people living in rural areas are also significantly less likely to present to clinical services following an episode of self-harm as compared to their urban counterparts (Fadum et al., 2013).

LGBTQI Young People

A systematic review found that the one-year prevalence of suicide attempts in young LGBTQI men and women was two and a half times higher than the rate for heterosexual males and females (King et al., 2008). While sexual orientation and gender identity alone does not elevate the risk of self-harming behaviour for a young person (Eisenberg and Resnick, 2006), the discrimination, bullying and negative responses from peers, family and the broader community does. As a result, the rates of suicide and self-harming in this population remains high (Leonard et al., 2012).

ⁱ See for example, <http://www.abc.net.au/news/2014-07-24/triggs-self-harming-in-detention/5621706> Accessed 30 March, 2015.

ⁱⁱ The rate of self-harm in young female detainees was similar to community rates in this report (4,261 per 100,000 detainees aged 12-17 years versus 5,700 per 100,000 12-17 year olds in the community).

BOX 3. DISCUSSION**Involving young people in research**

There remain significant gaps in knowledge and understanding regarding self-harm behaviour for young people, particularly those in high-risk groups. One reason for this includes the paucity of research that involves direct participation of young people who engage in self-harm, in part due to a perception that it is unsafe to include these young people suicide-related behaviour in research (Australian Human Rights Commission, 2014a).

There is, however, little evidence to support this perception and recent studies have demonstrated no adverse consequences among participants involved in suicide prevention research (Robinson et al., 2014b, Robinson et al., 2014c). Instead the frequent exclusion of young people at risk of, or engaging in, self-harm is only contributing to the current absence of evidence on how and why young people engage in self-harm and the effectiveness of interventions, including those targeted to high-risk groups. Further, there is a growing field of practice and evidence to support the notion that participatory action research models improve the quality of research and its impact on policies and practices (Delman, 2012).

The Children's Rights Report (2014) recommended the establishment of a national research agenda for children and young people engaging in non-suicidal self-harm and suicide-related behaviour through the new National Centre of Excellence in Youth Mental Health, and for a greater focus on increasing the participation of young people who engage in self-harm or suicide-related behaviours in research.

Orygen, as the National Centre of Excellence in Youth Mental Health is currently enhancing youth participation and engagement across the entire organisation, including within the centre's research division. As such, there is an opportunity to build into the work of the National Centre a general training and resource package for researchers working in youth mental health, self-harm and suicide research to support the engagement of young people who engage in these behaviours.

Risk and protective factors

There are a range of additional factors, or stressors, that can contribute to risk of self-harm in young people (Hawton et al., 2012b). These include, but are not restricted to:

- Family breakdown or conflict;
- Relationship problems;
- Knowing others who self-harm or a family history of self-harm (see discussion on contagion below);
- Being bullied;
- School or work problems;
- Alcohol and drug abuse;
- Past trauma, neglect and/or abuse;
- A previous history of self-harm;
- Aggression and/or violence;
- Low self-esteem;
- Impulsivity;
- Poor coping skills;
- Poor problem solving skills.

While there has been significant research into the aetiology and risk factors for self-harm in young people, only a few studies focus on protective factors. To date factors such as parental attachment and warmth, especially from mothers, appear to protect adolescents from later suicidality (Portzky and van Heeringen, 2007). Emotional intelligence (i.e., the ability to regulate emotions in a positive manner and to use adaptive coping strategies during times of stress) (Mikolajczak et al., 2009), use of a problem-oriented rather than emotion-oriented coping style (McMahon et al., 2013) and social connectedness (Donald et al., 2006, Kaminski et al., 2010) have also been identified as important protective factors. Cultural identification and connection may also be an important protective factor against suicide-related behaviour among young people from Indigenous backgrounds (Chandler and Lalonde, 1998).

Contagion

Exposure to self-harm in others (friends or family) is known to increase the risk of self-harm in adolescents (Hawton et al., 2012b). The risk of self-harm contagion among young people is high, especially with regard to self-cutting among young females (Hawton et al., 2010).

There is a need to further understand the process by which social contagion occurs and more research in this area is required. This is particularly important in school environments and online, where social networking and discussion groups among young people extend the sphere of peer influence outside of their usual school and community circles.

Young people who engage in self-harm use online technologies more frequently than their peers (Mitchell and Ybarra, 2008), signaling the need to develop and deliver safe self-harm interventions both on and offline. Young people describe these platforms as important points of social connection, peer support and understanding, and find they are useful for accessing adaptive coping strategies when and where they need them most. However, given that the association between Internet use and subsequent risk of self-harm is currently unclear (Daine et al., 2013), there is concern that exposure to self-harm and/or suicide on social media platforms may also contribute to contagion for some users. As such, further research and careful consideration is required in this area, as well as education for young people to: a) assist them to recognise unhelpful online content, and b) to help them to access helpful coping strategies and support online.

Impact and consequences of self-harm

Self-harming behaviours often have serious physical and psychological effects. Aside from the obvious and sometimes life-threatening physical effects (such as wounds, infections and organ damage), self-harm can have a devastating psychological impact on a young person, including intense feelings of shame, stress, low self-esteem and depression.

Along with the broader social and economic impact of self-harm (including health system costs and loss of productivity from self-harm and suicide attempts), personal relationships and the mental health of close family and friends are also affected by the behaviour.

An Australian population-based study found that most adolescent self-harm behaviours remit in late adolescence and early adulthood (Moran et al., 2012). While this may provide some basis for hope for some young people who self-harm, for many the behaviour and/or the underlying issues can continue and become associated with a range of adverse outcomes for young people, their families and the broader community. Some of these are outlined in Table 1.

The risk of self-harm contagion among young people is high, especially with regard to self-cutting among young females.

TABLE 1: ADVERSE OUTCOMES ASSOCIATED WITH SELF-HARMING BEHAVIOURS

Suicide attempts, suicide and premature mortality	Self-harm during adolescence can indicate future risk of attempted suicide (Fergusson et al., 2005) or suicide, as well as premature death from both natural causes, such as circulatory and digestive system disease and from accidents (Bergen et al., 2012). Self-poisoning in particular is a strong predictor of premature mortality, including suicide deaths and death from accidents (Finkelstein et al., 2015).
Mental ill-health	Self-harm is also associated with a wide range of mental health problems in later life (Klonsky, 2011). Young people who engage in self-poisoning between the ages of 11 and 16 are significantly more likely to experience mental health problems in early adulthood, including an almost fourfold risk of being diagnosed with major depression; a threefold risk of being diagnosed with an anxiety disorder and a fivefold risk of being diagnosed with a comorbid condition (Harrington et al., 2006, Groholt and Ekeberg, 2009). Most adults with BPD report a long history of repetitive self-harm that started in adolescence or childhood (Zanarini et al., 2008).
Physical ill-health	As adults, people who engaged in self-harm during adolescence and young adulthood are twice as likely to meet diagnostic criteria for a metabolic syndrome, have higher levels of systemic inflammation, and have an older 'heart age' than those with no such history (Goldman-Mellor et al., 2014).
Substance misuse	Self-harm during adolescence has been linked to an increased risk of substance misuse in adulthood (Harrington et al., 2006), including cannabis misuse (Mars et al., 2014) and polysubstance misuse (Moran et al., 2015).
Traffic accidents	Self-harm may also be associated with an increased risk of being involved in a motor vehicle accident. A study of 22,822 newly licenced drivers found that those who self-reported engaging in self-harm in the year preceding registration (more than half of whom were 17 years old at the time) were significantly more likely to be involved in a serious motor vehicle crash in the two years following registration (Martiniuk et al., 2009).
Poor economic participation outcomes	Other negative consequences include disruption to education and career pathways, including reduced participation in vocational and educational training in late adolescence (Mars et al., 2014) and unemployment (Young et al., 2007).

Impact on family members

There is limited research examining the impact of self-harm on parents and very few programs provide targeted support to this group. Parents of young people who engage in self-harm report lower levels of wellbeing, lower levels of perceived parenting efficacy, distress, and a lack of social support (Morgan et al., 2013). They may also find the lack of access to services to support themselves and their child distressing.

In one study, parents described the emotional impact of self-harm, including lasting shock, disappointment, guilt and fear as well as a sense of grief and loss (Oldershaw et al., 2008). They also reported changes to their normal parenting style to one of constant surveillance and an inability to respond to their child's emotional needs as a result. These views were echoed by parents consulted in the development of this paper:

“ Because [there is a perception that self-harm] might lead to suicide...they [the parents] set up a 24/7 watch which is draining.

“ After she was discharged from hospital back home, we were told never to let her out of our sight.

As such, parents and carers must themselves be provided with appropriate levels of support from mental health professionals. Parents consulted for this paper strongly believed that this support would best be provided through a peer workforce (in the first instance). Strategies for dealing with stigma and guilt, understanding the function of self-harm, appropriate communication methods (such as learning open-ended questioning), and suppressing the overwhelming urge of a parent to try to 'fix' the behaviour were described as being most needed.

After this, they believed parents would be more open to receiving professional support from clinicians who could provide further assistance such as by teaching effective coping skills and thus better equipping them to look after their own mental health.

“ Joining a support group of parents who were going through something similar really helped. ...understanding that self-harm was a coping mechanism...then I could react differently...and support her instead of over-reacting.

Economic impacts

To date no formal attempt has been made to quantify the socio-economic cost of self-harm in Australia. Given that self-harming behaviours are associated with a range of mental illnesses it is difficult to determine the exact resource and service provision costs associated with self-harming as compared to treating the underlying illness (NICE, 2012).

A report prepared by ConNetica Consulting (2009) on the economic cost of suicide and self-harm in Australia concluded that based on AIHW hospital admission and cost data, \$133.3 million is spent on self-inflicted harm every year. The report also conservatively estimated the economic cost of suicide and suicide-related behaviour on the Australian community to be \$17.5 billion every year.

**IMPLICATIONS**

In order to develop effective community prevention and early intervention strategies, accurate prevalence data are required. This could be achieved through population health and wellbeing surveys, ABS data collection mechanisms, and funding for regular and comparable community-based prevalence studies.

Replicating the sentinel data system in Newcastle in other hospitals selected to mirror the demographics of the Australian population could, at a relatively low cost, support the development of a much-needed national dataset of the prevalence of, and characteristics associated with, self-harm.

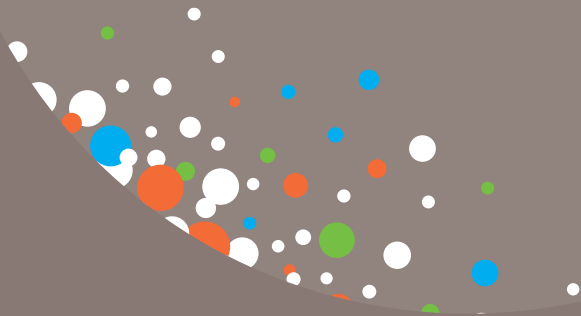
There are groups of young people who are at a significantly higher risk of engaging in self-harm. Acknowledging and involving high-risk groups of young people in research and program evaluation is critical to developing evidence-based interventions that are effective, acceptable and accessible.

There is a need for a national research agenda for children and young people engaging in non-suicidal self-harm and suicide-related behaviour that includes a greater focus on protective factors, the mechanisms of contagion and intervention research. This agenda should also seek to increase the participation of young people with lived experience of suicide-related behaviour or self-harm and their families in research.

Parents and families of young people who self-harm need to be provided with support and effective responses and strategies, possibly through a peer workforce.

.....

Evidence in Australia
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Section 2

Barriers to seeking help and intervening

As described at the end of Section 1, self-harming behaviours, and the underlying distress, can increase the risk of further harm and adverse outcomes into adulthood.

It is worrying, therefore, that evidence in Australia and internationally suggests that only a minority of young people who engage in self-harm present to health services for support. Findings from international population-based studies, for example, indicate that only 10 to 20 per cent of young people with self-harm present to hospital (Ystgaard et al., 2009), while one systematic review found that in the majority of studies, professional help-seeking rates were less than 50 per cent (Michelmores and Hindley, 2012).

Young people describe a number of barriers (Box 4) to seeking help, including perceived or actual stigma, embarrassment, lack of access to appropriate services; negative help-seeking experiences, difficulty recognising they may be experiencing mental ill-health and might need help, and insufficient care and follow-up after an instance of self-harm.

BOX 4**Barriers to help-seeking for self-harm**

Interpersonal barriers may include:

- The belief that others would not understand their self-harming behaviour;
- Fear of confidentiality being breached;
- Fear of being seen to be 'attention-seeking';
- Uncertainty as to whether parents or teachers can do anything to help;
- Fears that others would react negatively if self-harm was disclosed;
- Fear of being stigmatised.

Intrapersonal barriers may include:

- Presence of depression, anxiety or suicide ideation;
- Minimisation of self-harm as a problem;
- The belief that one should be able to cope on one's own.

Source: Rowe, French et al. (2014)

“ [I] didn't really discuss it at all with my friends or family...I felt I would be burdening them.

The following section describes in more detail a number of barriers for young people and their families to access help for self-harming behaviours, either early in identified risk (e.g., at points of severe distress or mental ill-health) or after onset of the behaviours.

Stigma

“ There is this stigma and people just don't understand it, and it needs to be brought to attention.

Young people and their families identify significant stigma around self-harm both in the community, but more worryingly within specialist services, as described later in this section.

This can include the perception that self-harm is 'a teenage phase' or that it is merely a result of participation in sub-cultures (e.g., Goth).

The perception and misconception that self-harm is 'just attention-seeking' is a common theme in both the literature and in conversations with young people. As one young person said:

“ Most people who self-harm do it and hide it, you wear long sleeves or you hurt yourself in ways that aren't visible. So really it's the opposite of attention-seeking.

Other young people participating in consultation for this paper spoke of experiencing high levels of stigma and negative attitudes from teachers and family members, with many reporting they were either instructed to cover up the evidence of self-harm, or the behaviour was ignored entirely.

“ Every time I self-harm my mum tells me to wear long sleeves as she doesn't want people looking.

“ There was one girl in school who self-harmed and the teachers knew but they were like "put your sleeves down".

Interestingly, parents involved in consultation for this paper identified that their response to self-harm was often a reaction to their own experience of stigma. They felt judged for being a 'bad parent' and sought to protect their child from negative reactions.

“ You're so ashamed...The guilt you feel for not understanding what was going on and thinking it is your fault.

“ If only they (young person) knew we weren't ashamed of them but we were ashamed of what we felt we hadn't been able to provide for them.

Low mental health literacy

Many young people who self-harm have low levels of mental health literacy (Rowe et al., 2014). Moreover, it is well documented that young people, in particular those experiencing suicide-related thoughts or behaviours, are reluctant to seek help (Rickwood et al., 2007). The more at risk an individual becomes, the less likely they are to seek help—a process known as the 'help-negation effect' (Wilson and Deane, 2010). Together these can result in significant delays in help-seeking and accessing much-needed support services.

Often family members, particularly parents, report noticing signs of self-harm in their children long before contact is made with clinical services (Oldershaw et al., 2008), and young people report they are more willing to disclose self-harm to family members and friends than to clinical services in the first instance (Rowe et al., 2014).

“ People just don't know enough about mental health in general and if police and schools and parents and kids were educated on this stuff then they would understand it more and there would be less stigma and it would be easier to talk to people and easier to get help.

However, often parents and peers do not understand the behaviour and downplay its significance. They also report a lack of understanding of the functions of self-harm and a lack of confidence in talking to their children about this behaviour (Oldershaw et al., 2008). Providing parents and families with easy access to information to assist them to understand self-harm is a critical step in supporting them to engage their child in conversations about their self-harm and facilitate help-seeking.

One parent identified:

“ [there is a need] to be given an understanding as to why they are cutting. To me, cutting was such a foreign thing “Why would you want to hurt yourself?” and that’s the way I approached it with her, but now I have learnt it is a coping mechanism and I can look at it in a totally different manner.

Case Study 2 describes one resource developed in the United Kingdom, healthtalk.org.uk, which includes a module on self-harm specifically for young people and their families.

Relying on family support is not an option for all young people, particularly where there is an experience of family dysfunction or abuse. As such it is important that other key community members who can act as ‘gatekeepers’ (including peers, teachers, prison staff, social workers and Indigenous service providers) also have the skills and knowledge to facilitate and encourage help seeking. However some people in these roles appear hesitant to facilitate and respond to disclosures of self-harm. As one young person noted:

“ Not talking about it isn’t going to stop people self-harming. Sometimes people who self-harm don’t ask for help because people are like “Shhh! We don’t talk about that”.

CASE STUDY 2 healthtalk.org

Healthtalk.org was developed in 1999 by the University of Oxford’s Department of Primary Care to provide information on people’s lived experience of different illnesses. As of late 2014, over 100 different illnesses are addressed in individual modules, including a module for people who engage in self-harm, and a second module for people bereaved by suicide. A module for parents and carers of young people who engage in self-harm is currently being developed.

A research team interviewed participants with a lived experience of self-harm and how these people made treatment decisions following a self-harm episode. The content of these interviews was then reviewed by an advisory panel comprising patient advocates, health professionals, clinicians and researchers with experience in self-harm to ensure the content was evidence-based and accurate. The interviews were then posted as videos or transcripts to the healthtalk.org website. As this is an open access website, these interviews can then be accessed by any member of the public.

The content of these modules can help people who engage in self-harm (and their parents) feel less isolated, to understand the potential causes of their behaviour, to identify triggers, to understand their treatment options, and to feel more confident in approaching clinical services.

Responding to self-harm in schools

The second Child and Adolescent Mental Health Survey found almost half of adolescents who sought help for self-harm did so through a school-based service (Lawrence, 2015). However, teachers and school-based professionals report feeling they lack the skills and resources to respond to students self-harming behaviours (Berger et al., 2014; Heath et al., 2006). In consultation for this paper, headspace School Support reported that schools are struggling to respond to self-harm, with issues such as contagion being of particular concern.

Suicide prevention and mental health training programs for gatekeepers, such as Mental Health First Aid, Question, Persuade, Refer (QPR), Applied Suicide Intervention Skills Training (ASIST) and Skills-based Training on Risk Management (STORM) have been shown to increase the confidence of community gatekeepers (including teachers and school staff) to respond to mental health and suicide in an empathetic and helpful way (Isaac et al., 2009). However, their impact upon young people's self-harming behaviours is largely not measured (as described in the evidence review of interventions section).

Case Study 3 describes a recent gatekeeper program that was developed in Victoria in 2014-15. SAFEMinds provides teachers and families with information and tool kits to respond to student self-harm and was enthusiastically adopted by school staff across the state, possibly illustrating the current lack of self-harm specific resources available. While the SAFEMinds resources and tools are now available, funding is required for the ongoing costs of engaging and training school and education department staff, and for evaluation.

CASE STUDY 3 SAFEMinds

The SAFEMinds program, developed through a partnership between the Victorian Government and headspace, the National Youth Mental Health Foundation, embeds professional learning and resources for teachers on early intervention mental health support for children and young people in schools. The program received \$750,000 funding in the 2014-15 financial year.

SAFEMinds provides schools and school communities with support to respond specifically to mild mood disorders (e.g., depression and anxiety) and self-harm. An additional component of the SAFEMinds program is a series of parent forums that provide information on how to support a young person experiencing emotional distress.

While at present there is no formal published evaluation of the effectiveness of this program, headspace School Support reported that the uptake was significant, possibly evidence in itself of the high need in schools for support to respond to these presentations, and that the program was well received, with other states and territories also indicating interest.

Subject to a positive evaluation, SAFEMinds presents a promising integrated school, family and community response to early intervention for young people engaging in self-harm.

Lack of access to appropriate services

Young people often engage in self-harm as a means of coping with psychological distress, including overwhelming negative feelings, thoughts or memories, and a sense of hopelessness. As described earlier, self-harming behaviours are also prevalent in populations of young people who are experiencing early onset of mental ill-health or have been clinically diagnosed with a mental illness.

To this end, access to appropriate services that can provide early intervention and treatment of these underlying issues is imperative. As one young person described:

“ If you don't treat the underlying reasons then it is difficult to stop [self-harming].

For many young people who self-harm, particularly those in high-risk population groups, there can be an absence of youth-friendly and accessible face-to-face counselling or mental health services. For ATSI young people the difficulties accessing appropriate services is often compounded by a lack of culturally appropriate services.

Role of GPs

GPs are an important and effective point of early intervention if they are equipped to identify mental health concerns and provide effective evidence-based strategies and interventions. One international systematic review found that educating and training primary care physicians on the treatment of depression and other mental illnesses led to a subsequent reduction in suicide attempts (Mann et al., 2005). It would be reasonable to assume this would also lead to a reduction in other associated self-harming behaviours.

The National Mental Health Commission Review (2014) identified that GP visits for mental health problems number roughly 15.8 million per year in Australia, which accounts for approximately 12 per cent of all visits. The Australian Government's Better Access program, introduced in 2006, and the ATAPS program introduced in 2001, have increased access to publicly funded mental health support via GP referral (Littlefield, 2014). In providing financial incentives for GPs to access mental health training, it could also be suggested that Better Access also resulted in better mental health care provided by in primary care settings.

ATAPS provides up to 12 sessions with an allied health provider (psychologist or psychiatrist) per calendar year, and the program has a specific focus on improving access for vulnerable groups including those on a low income and ATSI. One of the ATAPS Tier 2 Initiatives—Suicide Prevention—provides for an immediate response for people who have been referred because they have attempted, or are at risk of attempting, suicide or self-harm, including in the absence of a mental health diagnosis. Those eligible include:

- Individuals who have attempted suicide or self-harm and have been discharged into the care of a GP from hospital or emergency department;
- Individuals who have presented to a GP after an incident of self-harm; and
- Individuals who have expressed strong suicidal ideation to their GP.

Priority access is provided to the ATAPS Tier 2 Initiatives—Suicide Prevention program for Aboriginal and Torres Strait Islanders who have self-harmed, attempted suicide or have suicidal ideation. If required this may also include providing support for their families. ATAPS also provides an after-hours suicide support line to provide clients with counselling and support to manage and reduce the risk of suicide and self-harm.

Across all ATAPS services, young women aged 15–24 years are the highest users, and the rate of ATAPS consumers among Indigenous Australians was over twice that for non-Indigenous Australians (Australian Institute of Health and Welfare, 2013). It would be useful to increase the understanding regarding young people's use of the ATAPS Tier 2 Initiatives—Suicide Prevention program, including further detail and analysis of the data for specific sub-populations of young people aged 12–25 years, reason for referral (including self-harm), principal diagnosis, treatment duration and outcomes.

Access to ATAPS requires referral through a GP, and it is important to note that young people are almost half as likely to visit a GP for a mental health related matter compared with the rest of the general population (Australian Institute of Health and Welfare, 2011). Reasons for this may include geographic isolation, confidentiality concerns, intimidating non-youth-friendly environments and a general reluctance to seek help, particularly among young men. Reducing these barriers to access for primary care, for example, by making clinics youth friendly (including via extended opening hours) could then further increase access to the ATAPS program for young people including those who self-harm.

Youth mental health services

The youth mental health programs headspace and eheadspace have improved the accessibility and increased the use of mental and allied health support (including GPs) among young people by providing services in an appropriate and stigma-free environment (Muir et al., 2009).

By 2016–17 there will be 100 headspace centres nationwide, which provide health advice, information and support to people aged 12–25 years in mental health, general health, employment and alcohol and other drug issues. The range of services provided by each headspace centre varies depending on the prioritisation of local issues, the capacity of the local workforce to provide an effective response and the available funding.

Data provided by headspace for this paper indicate that of those young people who attended a headspace centre between April 2013 and April 2014 for a mental health or behavioural issue, self-harm was a primary issue of concern for 2.1 per cent and a secondary issue for 2.8 per cent. Given the low service use among vulnerable groups at high risk of self-harm, and the stigma associated with disclosing self-harm, it is likely these figures underrepresent the extent to which self-harm is a concern for young people.

headspace is not available in every community across Australia and a 2009 evaluation of headspace reported concerns that the service was not being accessed by marginalised groups such as ATSI, culturally and linguistically diverse populations (including new arrivals and asylum seekers) and other particularly vulnerable groups (Muir et al., 2009).

headspace centres have been responding to improve their reach and diversity of service use. While youth advisory structures are already a feature of many headspace centres, it is important there are continued efforts to include young people who are currently low service users and/or high risk, in the services' design and development, as described in Box 5.

The Australian Government signaled in its response to the National Mental Health Commission Review of Mental Health Programmes and Services (Department of Health, 2015) that they will be considering different funded options via primary care and the Primary Health Networks to deliver "early intervention to a broader group of young people with early signs of severe mental illness, a number of whom may be at risk of suicide." (p15) Through this process, trials focused on effective

responses to self-harming behaviours within headspace and other community-based mental health care services could be initiated.

BOX 5. DISCUSSION

Involving young people who self-harm in service and program design

“ I think young people who have experienced self-harm could share experiences to reduce stigma and collaborate with other organisations to give feedback on what is or isn't helpful.

One of the objectives of the International Declaration on Youth Mental Health (2013) is to 'Provide opportunities for young people and their families to participate fully in the planning, design and delivery of youth mental health services.'

It follows that organisations should be supported to engage young people who self-harm (and their families) in designing, developing and delivering programs. Participatory design has been used to support the improvement of health care services (Bate and Robert, 2007) and has been well documented by the Young and Well Cooperative Research Centre in the development of online youth mental health services (Hagen et al., 2012).

There are examples, such as the Leeds Children and Young People Self-Harm Pathway, which have involved young people in the design of new services to support other young people who are self-harming and to support adults around young people who self-harm.

At Orygen Youth Health, many young people accessing the clinical services for mental illness are trained as peer support workers, enabling them to offer direct support to other young people in both inpatient and outpatient settings. Young people are also involved in staff recruitment and are frequently consulted about policy and organisational decision-making, such as through the Orygen Youth Health Clinical Program Youth Participation Program.

Participatory design strategies need to ensure they also include young people who are not accessing the service and are provided with the resources and expertise to focus on supporting the participation of young people in particularly high-risk groups.

Crisis support

Self-harming behaviours often occur at a point of severe emotional distress. Delaying the urge to self-harm for several minutes can help the wave of distress subside and it is at this point that accessing support and someone to talk to can be helpful. As one young person described:

“ [Having someone]...sitting with me and being with me in the moment until the urge to self-harm passes...I've self-harmed less since I've had someone to talk to about it.

However, face-to-face support is often not available at the times young people need it most. It is in response to this that many young people will seek support for their self-harming behaviours and feelings of underlying distress through a combination of online technologies and phone counselling.

“ Most services aren't 24 hours so you have to jump from one to the other to find out, 'cause you don't just feel unwell 9-5.

eheadspace data provided for this paper show a higher proportion of self-harm presentations than that recorded in headspace centres. Of all young people who received an eheadspace service (online or by phone) in 2013, 4.0 per cent were classified as having self-harm as their primary issue, and 9.2 per cent as their secondary issue at their first session (this compares to 2.1 per cent and 2.8 per cent in face-to-face headspace attendances cited above). The higher rate of eheadspace service utilisation may indicate a number of factors relating to help-seeking for self-harm including a possible preference for anonymity or difficulty accessing face-to-face services, either due to geographical barriers or service opening hours.

“ I think headspace does help. I have a friend who is 19 and is having trouble and went to eheadspace for help. She wanted help but didn't know where to go, and couldn't physically get there.

Data provided by Kids Help Line to the National Children's Commissioner on contacts by children and young people aged 5-17 years for self-injury and self-harm also indicate that of all contacts made to this service during the 2012 and 2013 financial year, just under one-quarter involved a child or young person who self-harmed (Australian Human Rights Commission, 2014a).

However, it is interesting to note that, of the 4,380 self-harm contacts made to Kids Help Line during this period, less than one per cent was made by ATSI young people. Given that 4.2 per cent of all Australian children and young people are from an ATSI background (Australian Bureau of Statistics, 2011) and the high prevalence of self-harm in this group, further investigation may be needed into why ATSI young people are often not accessing Teleweb services for support about self-harm.

Parents involved in consultation for this paper also identified the need for a '24/7' phone line for crisis support for parents and families:

“ [Some]where they can ring someone and ask about what to do next. Not 000 when you get all the bells and whistles—that's too extreme for self-harm, but “This is what's happening what should I do next?” and there really isn't anywhere to do that.

Currently, while a Parent-line operates in each state and territory, they vary in their hours of operation, with many not available 24 hours a day or seven days a week. Many also only respond to concerns for children up to the age of 18 years. As these services provide support for the spectrum of parenting issues, the likelihood of accessing a counsellor skilled in responding specifically to self-harm concerns may also be low.

Negative experiences with 'front-line' health professionals

Low rates of help-seeking among young people who engage in self-harm may also reflect poor experiences during previous help-seeking attempts, often in emergency and clinical mental health care settings. It is often in these settings that young people who self-harm and their families report the behaviour is trivialised and dismissed:

“ A doctor asked me if I was doing it for sympathy. A doctor! You'd think he would be someone who would know better.

Young people are seeking compassion, understanding and positivity from these first points of contact, however, as the National Mental Health Commission Review found, many people with suicidal thoughts felt they were not taken seriously by health professionals, particularly in emergency departments, and that when seeking help for self-injury, they were often sent home with minimal follow-up (National Mental Health Commission, 2014).

Emergency departments and hospital experiences

“ The abuse and judgement that comes from the doctors and nurses is the worst part of self-harm.

Survey data indicate that staff in emergency department settings may react negatively to young people who engage in self-harm for a number of reasons, including a lack of confidence and skill when it comes to interacting with self-harm patients (Gibb et al., 2010) and a lack of understanding of the association between self-harm and mental illness (Anderson et al., 2000).

In some cases there may be feelings that young people who engage in self-harm are less deserving of medical assistance because their injuries are self-inflicted. As one consultation participant recalled:

“ I have been stapled without anaesthetic just like terrible things that people do to you just 'cause you did it to yourself.

The particularly high level of stigma associated with specific mental illnesses, particularly BPD, might also inadvertently result in young people receiving prejudicial or even discriminatory treatment by health professionals.

After such negative experiences one young person consulted for this paper identified that within her peer group, young people prefer to provide medical care for each other rather than seek professional help.

“ I've had two or three friends call me every now and then saying "I've cut. I don't know what to do. [Should] I go to ED?" and I'm like "I'm great at steri-stripping...let's fix this" and we fix each other up.

One survey of emergency department nurses in Victoria found that around one in five respondents received no formal training in how to care for young people following self-harm (McCann et al., 2006). As such, frequent in-service training may help to improve staff confidence and attitudes (Patterson et al., 2007). Consequently this could improve young people's experience of, and satisfaction with, emergency and clinical services (Taylor et al., 2009), which in turn may improve young people's willingness to attend clinical services at times of crisis.

Experience with mental health clinicians

Unfortunately, some other mental health professionals also stigmatise young people who self-harm, whether or not this is a feature of their mental health problem and this has been particularly reported for individuals with BPD (Aviram et al., 2006, Bodner et al., 2015).

Young people with a diagnosable mental health disorder who self-harm describe caution when disclosing self-harm to mental health clinicians. As one young person said:

“ It's a big step to talk about self-harm and you don't want them [the clinicians] to take it away from you, just listen and understand.

For the young people themselves, and particularly those with BPD, stigma and discrimination from clinical professionals is not just a negative experience in and of itself but it may also be an independent predictor of poor treatment outcomes in the longer term (Aviram et al., 2006).

Parents also report negative experiences with clinical services and acute health settings. For example, parents consulted during the drafting of this paper mentioned witnessing staff being dismissive towards young people who had self-harmed. They also reported that policies of confidentiality were used as a barrier for parent involvement, which in effect excluded them from the process, that is, until the young person is discharged back into their care.

“ If they [the parents] can't speak to the clinician about it either then they feel really locked out of the process.

A critical way to improve the front-line clinical and non-clinical response to self-harm is through the development of national standards of care for responding to self-harm supported through training and education for all front-line professionals. Evaluations of training programs delivered by Orygen Youth Health Clinical Program, Melbourne Health found that the involvement of young people with a lived experience of mental ill-health and self-harm in the training was highly valued by both clinical and non-clinical participants. Training about personality disorders and self-harm that included video material developed with both young people and family members has been shown in the Orygen Youth Health Clinical Program to improve clinical staff attitudes, knowledge and understanding. Thus, involvement of young people and their families should be a key feature of future training programs.

“ In places where they [the young people] are being discharged to just the GP I don't think there is enough [services]...For us, while we had a lovely family GP, he just found the self-harming behaviours of my daughter too hard to deal with, it was in the too-hard basket.

Insufficient care and follow-up after self-harm

The risk of self-harm and suicide attempt has been found to be greatest in the four weeks after discharge from inpatient psychiatric care (Gunnell et al., 2008), yet parents consulted for this report identified significant gaps in support during this critical time, with many describing inadequate discharge referral processes to skilled and interested primary care and community service providers.

Young people who receive treatment for self-harm are most often discharged into the care of their families (Bridge et al., 2012) and the burden of care and responsibility for mitigating future harm falls back onto the parent or family member. As one parent described, the more mental health literate and capable you were as a parent, the more likely you were to quickly find your child discharged into your care:

“ ...the better carer you are, the more likely they are to shift the onus [of care] back on to you [as a parent].

A key element of the 2007 Australian Government Suicide Prevention Framework 'Living is for Everyone' (LIFE) included the provision of community-based safety nets for people discharged into the community following a period of hospitalisation: however, eight years later, the National Mental Health Commission Review found that many people who had attempted suicide perceived that there was still no 'middle ground' between inpatient hospital care and no care at all (National Mental Health Commission, 2014).

As described earlier, many emergency department presentations for self-harm do not result in hospital admission. The Post-Discharge Care from Hospital Emergency Departments Project was developed in response to research highlighting the lack of support provided to low-risk clients upon discharge from emergency departments following self-harm or a suicide attempt (Australian Healthcare Associates, 2014). The project aimed to achieve this by establishing and enhancing clear and effective linkages between general practice, specific clinical staff within hospital emergency departments and relevant community-based services. Outcomes identified from this project included lower rates of re-presentations for self-harm to emergency departments following self-harm along with a need for joint training across acute and primary sectors to facilitate effective referrals.ⁱⁱⁱ

State and territory health systems, and individual hospitals, have their own protocols and processes for discharging people admitted for suicide attempt or self-harm. However, it would appear that in practice, there remain gaps in appropriate referral systems, possibly as a result of a limited capacity for community and primary care services to support a much needed 'step-down' model of care.

“ In Scotland [they have something] between a hospital and a structured drop-in centre...[The young person] can come in at night...have a safe bed...and be under passive clinical observation...Not a drop-in centre. Not a closed hospital.

Step-down care for self-harm requires the identification of underlying psychological or psychiatric issues and/or comorbidity and should provide considered referrals to skilled and resourced community-based support services. In its response to the National Mental Health Commission Review of Mental Health Programmes and Services (Department of Health, 2015), the Australian Government signaled that it will work with state and territory governments to “ensure effective post discharge follow up for people who have self-harmed or attempted suicide” (p18) as part of the new national suicide prevention strategy.

Again, the role of GPs is critical here as they are often the primary point of referral on discharge and therefore need to be resourced and skilled to identify underlying issues to support further referral and help-seeking. This role could be supported through existing Australian Government initiatives, such as the Primary Mental Health Nurse Incentive program, and through the coordination and identification of local service pathways and referrals between primary care and hospitals as part of the role of the 31 Primary Health Networks, responsible for the commissioning community mental health services from 1 July 2016.

There have also been calls for a stepped care model for those with self-harm and early signs of BPD. In this model, those with less acute symptoms would receive simpler and briefer treatments, those wanting or needing more care might access the next level up consisting of generic high quality, time-limited interventions, leaving the specialised treatments that are more intensive and costly to those that do not respond to simpler treatments (Chanen and Thompson, 2014). Evidence-based early intervention services for BPD that offer time-limited, quality case management could be seen to fit somewhere in the middle of this model. This could be combined with an approach that targets those most in need with a 'front loaded' system (Brent et al., 2013) in which those with the highest risk (e.g., immediately following discharge from hospital) receive the most immediate responses.

ⁱⁱⁱ http://www.checkup.org.au/icms_docs/162435_Post_discharge_care_for_patients_presenting_to_emergency_departments_with_deliberate_self_harm_or_suicide_attempt.pdf

**IMPLICATIONS**

Self-harm and mental health education and support resources, for both young people and their families, need to be developed (including online and peer supports), informed by young people with a lived experience of self-harm.

There is a need for school-based programs specifically providing staff, students and the school community with skills and resources to respond to self-harm. The SAFEMinds program in Victoria, subject to a positive evaluation, may provide a promising example of this.

Gatekeeper training programs for self-harm are required to address community stigma, to build awareness and improve the capacity of the community to provide pathways to further help and support.

Further investigation and review is required into the low usage of youth mental health services and supports (both online and offline) by particularly high-risk groups of young people, including young people seeking asylum, Aboriginal and Torres Strait Islanders and young people with more acute mental health concerns.

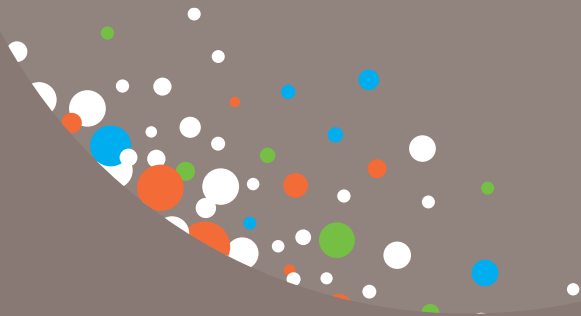
National standards and training for responding to self-harm should be developed by an accredited and independent body and delivered for front-line health professional staff, including GPs, clinicians, emergency departments, general practitioners and ambulance staff. The standards should promote compassion, understanding and positivity, and involve young people in the development and delivery of training.

There is a need to improve step-down care from hospital and emergency departments for self-harm presentations, including referral to appropriate primary and community-based care.

.....

Sometimes people who self-harm don't ask for help because people are like "Shhh! We don't talk about that".

Young person



Section 3

Current Government policy responses to self-harm in young people

Australian Government policy responses to self-harm have predominantly operated within the context of suicide prevention activities. In 1999 the government released the National Suicide Prevention Strategy (NSPS) to address suicide across the whole lifespan. The Strategy has four inter-related components:

1. The LIFE framework, which provides a strategic plan for national action to prevent suicide and promote mental health.
2. The National Suicide Prevention Strategy Action Framework.
3. The National Suicide Prevention Program (NSPP) funding for both national and community responses, infrastructure and research.
4. Other mechanisms, which align and enhance state and territory suicide prevention activities.

This Strategy is now over 15 years old and was last reviewed in 2007. The National Suicide Prevention Advisory Council has also been recently disbanded. The National Mental Health Commission Review (2014) recommended the development of a reinvigorated National Suicide Prevention Framework, in partnership with state and territory governments, people with a lived experience of self-harm and other key stakeholders. The Commission recommended that the framework should connect what works, build momentum, be flexible to accommodate local and cultural strengths and that it should collectively guide investment.

In responding to this review the Australian Government has announced "it will move to immediately implement a new national suicide prevention strategy with four critical components:

- national leadership and infrastructure including evidence based population level activity and crisis support services;
- a systematic and planned regional approach to community based suicide prevention, which recognises the take-up of local evidence based strategies. This approach will be led by PHNs who will commission regionally appropriate activities, in partnership with LHNs and other local organisations;
- refocusing efforts to prevent Indigenous suicide; and
- working with state and territory governments to ensure effective post discharge follow up for people who have self-harmed or attempted suicide, in the context of the Fifth National Mental Health Plan."

(Department of Health, 2015, p17)

Aboriginal and Torres Strait Islanders

Specific policy responses have been designed to respond to the unacceptably high rates of self-harm and suicide across ATSI populations. The National Aboriginal and Torres Strait Islander Suicide Prevention Strategy, supported by \$17.8 million over four years (2012-13 to 2016-17), includes a number of actions and strategies that are culturally driven from the ATSI people's holistic view of mental, physical, cultural and spiritual health.

In the past five years, a number of in-depth Australian Government inquiries into suicide and self-harm have been conducted including:

The Senate Committee's report: 'The Hidden Toll: Suicide in Australia'. This report identified the need for an evidence-based, whole-of-community and whole-of-government response to target those at risk of suicide. The Australian Government responded to the report with the 'Mental Health Taking Action to Tackle Suicide' package, and articulated how the government would work across all systems to prevent suicide and support those at higher risk. The response identified the importance of early intervention to promote good mental health and build resilience in young people.

House of Representatives Standing Committee on Health and Ageing: 'Before it's Too Late—Report on Early Intervention Responses Aimed at Preventing Youth Suicide in 2011'. This report made a number of key recommendations to reduce youth suicide through better data monitoring, collaboration, research and evaluation

to inform best practice interventions and build mental health literacy and gatekeeper training for people with critical roles in a young person's life. The recommendations were responded to by the government in 2013 and while all were agreed to in principle, the response predominantly highlighted activity already funded or in development (Australian Government, 2013).

State/ territory jurisdictions

Jurisdictional policy responses to self-harm are embedded within suicide prevention and/or general mental health strategies and often focus on young people in contact with state-based statutory and/or human services. Several jurisdictions, including Victoria, Queensland, New South Wales and Western Australia, have also developed plans and frameworks to address gaps in, and provide action for, Indigenous mental health and suicide prevention (Dudgeon et al., 2014). A snapshot of jurisdictional mental health and suicide prevention strategies which identify a response to self-harm is provided in the table below.

STATE	STRATEGY
Victoria	The Victorian Government's <i>10 year Mental Health Strategy</i> does not specifically mention self-harm. With a focus on prevention and health promotion, it does however commit to: a) the development of a whole-of-Victorian government suicide prevention framework; b) reduce the suicide rate (included suicide ideation and attempts); and c) close the health gap between Aboriginal Victorians and the general population attributable to suicide.
New South Wales	The <i>New South Wales' Suicide Prevention Strategy 2010–2015</i> recognises that self-harm and suicidal behaviour can be difficult to distinguish yet both are strong risk factors for suicide. The Strategy highlights particular groups of children and young people are at significant risk of suicide and self-harm, including ATSI, people experiencing mental illness and those who have experienced abuse and trauma. One aim of this Strategy is to continue to address suicide risk (including self-harm) in the correctional system and to improve understanding of the cultural significance of self-harm and suicide across different cultural and at risk groups.
Queensland	The <i>Queensland Plan for Mental Health 2007–2017</i> identifies the need to reduce suicide risk and mortality within Queensland communities, particularly for high-risk groups such as ATSI, rural communities and young people. The plan identifies a need to improve follow-up of people presenting to emergency departments following an episode of self-harm or attempted suicide, and to develop and implement early detection and intervention with children and young people, including training for school support personnel and other key providers such as youth support coordinators, child safety workers and youth justice workers. At the time this paper was produced, the Queensland Government were in the process of developing a community strengths based approach to suicide prevention.

STATE	STRATEGY
Northern Territory	<p>The <i>Northern Territory Suicide Prevention Strategic Action Plan 2015–2018</i> includes an action to explore self-harm prevention tools and training packages that can be targeted at communities and in high-risk population groups such as those in justice and child protection systems. It also identifies community-based training to improve suicide awareness and prevention skills among ‘gatekeepers’ and ‘natural helpers’ in communities affected by self-harm and suicide.</p> <p>The plan highlights that agencies and services need to work together to improve the accuracy of data collection on suicide, the identification of self-harm risk and protective factors, and that further research is required into self-harm to inform best practice prevention approaches.</p>
South Australia	<p><i>South Australian Suicide Prevention Strategy 2012–16 Every Life is Worth Living</i> identifies the need to develop pathways to care that provide assistance to people transitioning in and out of specialist mental health services, suicide attempt survivors, and those who self-harm by offering post-discharge support, particularly for those presenting to emergency departments, crisis services and psychiatric inpatient units. This must include support for interventions that maintain contact and follow-up after an event, for example via letter or postcard. This Strategy also contained many recommendations concerning self-harm responses in the justice system.</p>
Western Australia	<p>Western Australia’s <i>Suicide Prevention 2020: Together we can save lives</i> recognises high risk groups for suicide and self-harm include people with a mental illness, young people, Aboriginal people, those with a history of abuse and those that use alcohol and other drugs. It describes the need to improve policies, protocols and discharge planning for those who have self-harmed, provide whole of population responses as well as targeted activities for high-risk groups. It also identifies the need to break down the taboo and proactively enabling people to discuss suicidal behaviour and self-harm and prioritise strengthening the Response to Suicide and Self-Harm in Schools Program and expanding into areas of significant need.</p>
Tasmania	<p>Tasmania’s <i>Suicide Prevention Strategy 2010–2014</i> referred to the need to deliver community-based peer support networks for individuals who have attempted suicide or self-harm and to address self-harm in LGBTIQ communities. At the time this paper was produced, the Tasmanian Government is in the process of developing both a whole-of-population and youth-specific suicide prevention strategy.</p>
Australian Capital Territory	<p><i>Managing the Risk of Suicide: A Suicide Prevention Strategy for the ACT 2009–2014</i> aimed to reduce rates of suicide and self-harm in the ACT through a whole-of-government and whole-of-community approach. Particular actions identified include the need for data collection and analysis across the ACT, including emergency department and other services, to build workforce capacity to respond to self-harm, and the development of a comprehensive longitudinal evaluation design to collect pre- and post-intervention data for suicide and self-harm prevention.</p>

**IMPLICATIONS**

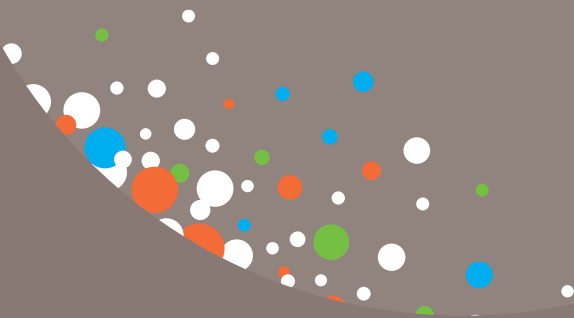
There is currently no Australian Government policy response specifically addressing self-harm in the community outside of suicide prevention.

Across jurisdictional policies, there are many overlapping strategic directions and priorities for responding to self-harm, including improved data collection and monitoring; protocols for responding to self-harm in front-line services and hospitals; workforce development; the need for community-driven and culturally appropriate responses; building research and the evidence base and providing targeted interventions to high-risk population groups.

There is a need for a national response to self-harm which facilitates joined up, coordinated responses that leverage from, rather than duplicate, jurisdictional efforts. This response needs to identify and address gaps in services, data and research.

There is also a need to reinvigorate the national suicide prevention agenda as recommended in the National Mental Health Commission Review (2014) and subsequently committed to by the Australian Government (Department of Health, 2015)..

Evidence of effective interventions for self-harming behaviours is limited with clinical interventions providing the best available research evidence.



Section 4

Evidence review of interventions

Evidence of effective interventions for self-harming behaviours is limited with clinical interventions providing the best available research evidence.

Evidence for promising interventions for self-harm could be derived from the suicide prevention, anxiety and depression literature. As there are many shared risk factors across self-harm and suicide-related behaviours, reducing exposure to those factors that are modifiable (such as bullying, drug and alcohol use, school or work pressures) is likely to have an impact on both sets of behaviours. Similarly, addressing underlying anxiety or depressive disorders would also be likely to reduce instances of self-harm. However, self-harm related outcomes are rarely measured when testing interventions targeting these risk factors. As such, the evidence to support these reasonable assumptions is lacking.

Prevention and early intervention

The following provides a description of the evidence available for the impact of interventions for self-harm applied in both community and school-based settings. These interventions are often delivered within a suicide prevention response, typically classified as universal (i.e. target entire populations regardless of risk), selective (i.e., target young people at elevated risk) and indicated (i.e. target young people known to have engaged in self-harm or attempted suicide). Appendix 1 provides the methodological detail, which underpins the following summary.

Community-based approaches

Community-based interventions frequently involve multi-tiered approaches that address universal populations as well as at-risk populations of young people. They can include awareness raising, gatekeeper training, screening, and community-led responses (particularly effective in ATSI communities).

Universal

Awareness campaigns aim to improve understanding across the community to de-stigmatise self-harm and to improve help-seeking. In a review of suicide prevention strategies, Mann and colleagues (2005) identified just four community-based awareness campaigns. While these programs demonstrated modest benefits in terms of improved understanding of the causes and treatment of depression, most did not measure outcomes relating to self-harm (Mann et al., 2005). Only one evaluation of a self-harm awareness campaign showed some success in reducing suicide re-attempts, particularly in those aged ≥ 18 but < 50 years (Lehfeld et al., 2004).

While the evidence is sparse, and concerns exist regarding possible iatrogenic effects, most young people and their families consulted during the drafting of this report strongly believed that increased community awareness would decrease the stigma associated with self-harm and should be a future priority:

“ We need people to be educated so that people can know what to do, how to react and you can normalise it. There is this stigma and people just don't understand it, and it needs to be brought to attention.

Gatekeeper training in communities can assist key health and community services professionals (e.g., counsellors, youth workers, social workers, GPs) to identify young people who may be at risk of engaging in self-harm and to facilitate timely referral to appropriate clinical services.

There is evidence to suggest that community-based gatekeeper programs are successful at imparting knowledge and building the confidence and perceived skills those trained (Isaac et al., 2009). One community-based gatekeeper program specifically for the prevention of self-harm was identified by the authors of this report (Arensman and Coffey, 2001) which demonstrated a positive effect on participant's awareness of self-harm and confidence to respond, again, the program's effects on self-harm behaviour was not evaluated.

To be effective, however, gatekeeper programs require clearly identifiable pathways and referrals to treatment (Mann et al., 2005). There is also a distinct lack of evidence regarding their impact on actual rates of self-harming and suicide-related behaviours. Further, international research has suggested gatekeeper programs may not meet the needs of Indigenous communities, as they may not align with cultural and/or social practices (Wexler et al., 2014).

Targeted/indicated

Early intervention services for young people

at risk: There is some evidence to support that early detection and early intervention services, particularly with high-risk groups such as young people with first-episode psychosis (Harris et al., 2008, Melle et al., 2006), do result in reduced rates of self-harm, quite possibly due to engaging the person early to treat the underlying mental ill-health (Melle et al., 2006).

Community-led responses can be particularly effective when considering cultural appropriateness. They often empower communities to take a lead in developing and owning the response. However, many of these programs are not subject to rigorous research methodologies and the evidence for their success is dependent on the strength of program evaluations and anecdotal feedback.

Culturally-led responses have demonstrated efficacy in responding to suicide and mental health concerns in young ATSI people (Dudgeon et al., 2014). Suicide prevention initiatives, such as the Yarrabah Project (Hunter et al., 1999), have responded to suicide by providing community members with coping strategies within a culturally responsive and supportive framework. However, while implementation of the Yarrabah Project has been associated with a significant decrease in suicide rates (Hunter et al., 1999), its impact on self-harming behaviours more generally has not been evaluated.

Another example is the recent Port Douglas and Mossman 'Living Works' project which will seek to establish networks of groups and individuals to develop a community-based prevention strategies specific to self-harm.^{iv} A comprehensive parent, school and community-based education program will also complement the response to ensure relevant 'gatekeepers' are trained to recognise the signs of self-harm in young people, to identify appropriate sources of help, and to feel confident in referring young people to these sources at times of distress. As this project is only undergoing implementation at the present time, there have been no formal evaluations as to its impact on rates of self-harm, suicide or any other relevant outcomes.

Self-harm prevention programs can be safely delivered in the school environment if done so carefully and with the right supports in place.

School-based approaches

Universal programs

In its synthesis of current suicide prevention research, the World Health Organization (2014) reported that, across the general school population, suicide prevention programs based on behavioural change and coping strategies were found to be effective. Given that these programs have been associated with significant reductions across a variety of suicide-related behaviours, (Robinson et al., 2013, Wasserman et al., 2015) similar programs may be effective in addressing underlying risk factors for self-harm, particularly for those adolescents who engage in self-harm but may find a targeted or indicated intervention stigmatising (Fortune et al., 2008).

The 'Signs of Self-Injury' program is the only evaluated school-based universal program identified by the authors of this report that focuses on the prevention of self-harm specifically (rather than suicide prevention more generally). Although the program improved participants' knowledge and attitudes towards help-seeking, no effect was found in terms of reduced frequency of self-harm (Muehlenkamp et al., 2010).

There have been some concerns and a reluctance to deliver universal suicide prevention programs within the school environment, due to fear of triggering thoughts and ideas relating to suicide and self-harm among participants. However, there is emerging evidence to suggest that if delivered carefully, there is no such effect (Robinson et al., in preparation). No iatrogenic effects in terms of increased thoughts of self-harm and/or frequency of self-harm behaviours were observed during the evaluation of the 'Signs of Self-Injury' program (Muehlenkamp et al., 2010). Studies such as this suggest that self-harm prevention programs can be safely delivered in the school environment if done so carefully and with the right supports in place.

Gatekeeper training in schools: As with community-based gatekeeper training, these programs typically aim to improve peers' and teachers' knowledge of risk factors and/or warning signs, attitudes towards those who engage in self-harm and confidence in managing potentially suicidal students within the school environment. Although self-harm gatekeeper training programs have shown some promise in improving knowledge, perceived skill and confidence in dealing with self-harming behaviour in students (Robinson et al., 2008), again the impact of these programs on self-harm behaviour within the student body has generally not been evaluated (Robinson et al., 2013). This should be addressed by future research.

Indicated programs

Programs that target students already known to be at increased risk of engaging in self-harming or suicide-related behaviour have shown effect at reducing psychological 'risk states' or precursors for self-harm, such as suicidal ideation, depression, hopelessness and anxiety (Tang et al., 2009, Thompson et al., 2001). These programs provide students with opportunities to develop coping skills, mood monitoring and management skills, and encourage help-seeking behaviour. However, the authors of this paper were unable to locate any evaluations of school-based indicated programs specifically targeted towards young people who were already engaging in self-harm.

Clinical interventions

Given that self-harm can be a behavioural response to distress that commonly co-occurs with a number of mental health problems, few young people access clinical support for self-harm alone. Many interventions offered for the treatment of these mental health disorders target a range of risk factors, including self-harm, yet as noted above, studies testing these interventions frequently fail to include the measurement of self-harm as an outcome of interest (Brent et al., 2013).

Two recent systematic reviews examined the effects of interventions on self-harm specifically, report that some forms of psychosocial therapy can show promise in reducing the frequency of self-harm (Hawton et al., [in press], Ougrin et al., 2015). These treatments are summarised below.

Dialectical Behaviour Therapy for Adolescents (DBT-A): in which participants attend weekly individual psychotherapy and multi-family skills training that focuses on four domains (interpersonal skills, distress tolerance, emotion regulation and mindfulness). In addition, family therapy and telephone coaching are provided as needed (Mehlum et al., 2014). DBT-A tends to be delivered over a prolonged treatment period (e.g., between 19 weeks and 15 months). DBT has been shown improved outcomes for adults with personality disorders on a range of measures, including NSSI, for significantly lower costs (Pasioczny and Connor, 2011); however, no cost-effectiveness studies were found for treatment studies of adolescents.

Mentalisation-Based Therapy for Adolescents (MBT-A): in which participants are taught strategies to regulate emotions, and particularly negative emotions, more effectively (Rossouw and Fonagy, 2012).

The challenge is that these specialised interventions require a considerable amount of training (DBT-A, for example, is expensive and delivered in the United States) and the interventions themselves are often both intensive and costly, limiting access for many young people.

Other psychosocial therapies

One clinically pragmatic review (Brent et al., 2013) concluded that the complex nature of suicide-related behaviours and self-harm requires the inclusion of interventions that have a broader focus than self-harm alone. They argue that interventions solely attempting to reduce the behaviour may not always be appropriate (or acceptable) to participants, and that interventions that aim to improve protective factors (such as monitoring of risks and provision of parental support) might be effective in reducing the risk of self-harm and suicide-related behaviours.

They reviewed a number of interventions that ranged from: very brief individual therapy, to group interventions, family interventions, treatments that integrate assertive case management with individual psychotherapy, Cognitive Analytic Therapy (CAT) and intensive individual treatments (such as MBT-A).

Despite the limitations of these studies (e.g., differing definitions of self-harm and relatively small sample sizes) they were able to draw some conclusions. Firstly, brief interventions can improve engagement in further treatment by young people with suicidal ideation, which might go on to reduce subsequent risk of self-harm. Secondly, treatments that included family involvement or increased support appeared to show promise in reducing the risk of self-harm (Brent et al., 2013).

As such, there has been an increasing focus on the development of high quality simpler treatments. In BPD populations (both adult and adolescent) psychosocial therapies which involve a structured (manual directed) partnership between patients and clinicians who are well supervised, responsive and validating, show promise (Bateman et al., 2015). Good Clinical Care (GCC), a high quality, manualised treatment that forms the basis of the early intervention for BPD program Helping Young People Early (HYPE), and has also been demonstrated to reduce self-harm and suicide-related behaviour almost as well as the specialised treatment it was compared to (Chanen et al., 2008).

Group-Based Psychotherapy

An intervention for which there is currently conflicting evidence is Group-Based Psychotherapy (GBP). The original research team in the United Kingdom found a significant reduction in repetition rates for self-harm (Wood et al., 2001) whereas an Australian replication trial found group-based participants were significantly more likely to re-present to hospital for self-harm when compared to controls (Hazell et al., 2009). The most recent, and largest, trial suggested there was no difference in effectiveness for GBP when compared to routine care, nor was there any evidence of cost effectiveness (Green et al., 2011).

The authors of the Australian trial reported a possible iatrogenic effect of GBP in which confidential information shared during the group therapy sessions was posted to an online web blog by a fellow participant, highlighting the potential adverse effects of group-based therapy in this vulnerable population (Hazell et al., 2009). As a result, this type of treatment is not recommended at this time.

Pharmacological therapies

Medication as a treatment response for self-harm in young people is not currently warranted, as there is no strong evidence that any medication reduces repetition of DSH in hospital-treated or outpatient populations.

A full list of the research evidence base for clinical interventions for self-harm can be found in Appendix 2.

Online and telephone interventions

Social media platforms

Social media platforms provide young people with a space to anonymously share their feelings and feel accepted and understood by a community of like-minded individuals (Robinson, Cox et al. 2015). Many online forums for self-harm feature static informational content related to personal experiences, advice, and guidance provided by those with a history of self-harm. Young people, however, may prefer interactive discussion board-style sites that facilitate chat room interactions and instant messaging (Mitchell and Ybarra, 2007).

Online platforms show promise, and are well received by young people. Membership to an online self-harm discussion group is often seen as a positive first step towards reducing repetition of self-harm in some people. Studies have also shown members of online self-harm forums credit these with having a positive impact and reducing the frequency and severity of their self-harm behaviour (Murray and Fox, 2006, Johnson et al., 2010).

To date there is limited evidence-regarding the safety and efficacy of these sites (Mok et al., 2015) and there is some concern that these platforms may encourage, normalise or reinforce engagement in self-harm among some vulnerable users. However, an evaluation of posts to the research discussion forum 'Sharp Talk' found that advice posted by users tended to be constructive (e.g., 'engage in distraction activities until the urge to self-harm subsides') and although there was a tendency to normalise self-harm, this did not result in trivialising the behaviour; for example, users still encouraged posters to seek medical attention after an episode of self-harm (Smithson et al., 2011). That said, site moderation may be necessary to ensure posts encouraging self-harm are removed and young people should also be provided with the skills to identify helpful resources while avoiding harmful resources.

ATSI young people: the 'Aboriginal Identity and Community Online' project^v is investigating the use of social media to address self-harm and suicide in ATSI young people. It has identified the benefits of social media for young people in these communities in circumventing social barriers, perceived or existing, and in encouraging users to request help who may not have done so otherwise. However, it also identified concerns ATSI young people have with social media, such as bullying and racism, as well as concerns that these platforms cannot replace face-to-face contact.

Web-based information and programs

The Internet is now an important source for help-seeking among young people (Rowe et al., 2014), and although some websites can exert a negative influence (i.e., so-called 'pro-self-harm' and 'pro-suicide' sites), a recent review found that most young people who engage in self-harm use the Internet to access support (Daine et al., 2013).

Web and telephone-based interventions have been found to be as effective as face-to-face interventions in reducing symptoms of depression in children and adolescents (Hetrick et al., [in preparation]). While there is also potential for suicide and self-harm prevention via the Internet,

there is as yet no strong evidence to support the efficacy of these approaches and this needs to be a future area for research (Robinson et al., 2014a, Jacob et al., 2014).

Websites, such as reachout.org.au and youthbeyondblue.org.au, provide young people with accessible, youth-friendly, and in some cases youth-generated, information on self-harm. They also provide interactive online programs to assist young people who may be experiencing depression and anxiety. However, there are currently no web-based programs that specifically target young people engaging in self-harm (Jacob et al., 2014).

BOX 6. DISCUSSION

e-mental health for self-harm

Young people involved in consultation for this paper described the value to them of online supports, particularly at times where they *'feel alienated or just too upset to interact with...people'*. However, they also identified potential risks of accessing information and support online, including contagion and finding pro-self-harm content.

e-mental health services are aware of the medico-legal and ethical issues surrounding online service delivery, particularly for young people presenting with self-harming or suicide-related behaviours. Duty-of-care obligations are of particular concern. As such, many e-mental health platforms may:

- a) Avoid actively seeking information or facilitating discussions on the subject; and/or
- b) In some instances may not allow young people who they know to be self-harming to participate.

There is a need to facilitate conversations about self-harm online, rather than avoid them, and to support both young people and e-mental health service providers to respond safely and effectively. The Young and Well Cooperative Research Centre (YAW-CRC) is currently developing Project Synergy, a back-end technology solution to enable the development of an integrated ecosystem of e-mental health and wellbeing tools and services. In working with stakeholders, the YAW-CRC identified the urgent need to respond to duty-of-care concerns.

These concerns could be addressed through:

- Establishing a group of sector representatives (along with ethics professionals and young people) to develop a set of duty-of-care and ethical standards to guide delivery of online wellbeing and mental health interventions (including for self-harm and suicidality);
- Establishing a network of experts who researchers, ethics committees and e-mental health service providers can access and consult for ethical advice relating to providing online mental health support to young people which is up-to-date with the latest technology; and
- Developing education and training on safe use of technology, both for the online e-mental health service providers, and more broadly for young people and their communities, families and schools.

Mobile applications

“ [My daughter] was always on the phone... [if] you had an app that was structured as approachable to the young person but had... fixed answers that if they triggered a formal risk assessment then [a] psych nurse could text them and say “Heh! Where are you? Do you want me to come and have a chat?”

A number of mobile applications have been developed to help users resist self-harm urges or thoughts of suicide, deal with stress and develop better coping skills through guided self-evaluation. Although a number of these apps focus on gatekeeper training for the prevention of suicide, an increasing number have been developed specifically for people who self-harm including those in high-risk population groups (see Appendix 3). Case Study 4 describes one app specifically designed to address suicidal thinking in ATSI young people.

CASE STUDY 4 i-Bobbly

One mobile app to address suicidal thinking in ATSI people between 18 and 30 years is currently being trialed by a consortium of researchers and clinicians from the Black Dog Institute, Alive and Kicking Goals! and BackTrack.

This app consists of three self-paced modules. The first encourages participants to identify the severity of their suicidal thoughts and strategies to distance themselves from these thoughts. In the second module, participants are guided through emotion regulation skills training, mindfulness techniques, and self-soothing techniques to use during times of distress. In the final module, participants are instructed to nominate small achievable goals to help them live by their values. The app incorporates Indigenous-specific metaphors, stories and art.

The effectiveness of this app in terms of its ability to reduce psychological distress and levels of suicidal ideation is currently being evaluated (Shand et al., 2013).

The benefits of these tools include the ability to provide support to an individual at times of crisis, when clinical or other services may be unavailable (Dimeff et al., 2011) and the ability to link those not yet in contact with clinical services to appropriate sources of help (Aguirre et al., 2013). This could be particularly useful for high-risk populations.

However, at present, most apps designed to prevent self-harm have not been evaluated and do not provide any information on the expertise of the developer, increasing the risk that users are provided with unhelpful, or potentially dangerous, advice. As such, formal evaluations of an app's effectiveness in reducing self-harming or suicide-related behaviour should be undertaken to assess their impact (Aguirre et al., 2013). Mental health professionals in partnership with young people, their families and researchers should also be leading the development of these programs and apps to ensure fidelity and safety. Investing in the development of a registry, including support staff to evaluate apps, update the listings and promote to young people, their families and clinicians would improve access to accredited and effective apps. It could also minimise potential risks from accessing unhelpful apps and potentially strengthen face-to-face treatment.

Telephone hotlines

Several young people involved in consultation for this document reported finding telephone counselling services useful. One service that received particularly good feedback was Kids Helpline:

“ They (Kids Helpline) are very youth-friendly...they will talk to you on good days not just when you are at your worst and you can develop a relationship with the people who work there...it is free, it doesn't come up on your phone bill and you can remain anonymous.

However, there is less evidence for the longer-term effectiveness of telephone hotlines for young people at risk of self-harm or suicide. While one evaluation of a suicide crisis hotline found significant decreases in suicidal ideation and suicidal urgency after a 40-minute consultation (King et al., 2003), another study found the reduction in suicidal intent reported from the initial phone call was not sustained at the follow-up assessment between two and four weeks later (Gould et al., 2007).

Further, the effectiveness of telephone interventions within culturally diverse populations is unknown. There have been no published evaluations to date of the effectiveness of Kids Helpline in assisting Indigenous children and young people to resolve mental health issues (Dudgeon et al., 2014), and (as noted earlier) ATSI young people appear under-represented in user statistics submitted by Kid's Help Line to the National Children's Commissioner in 2014 (Australian Human Rights Commission, 2014a).

**IMPLICATIONS**

While there is some evidence for the effectiveness of community-based and school-based suicide prevention and mental health interventions, further evaluation and refinement of existing programs is needed, along with the development of new evaluation/research methodologies to determine the impact of these interventions on self-harming behaviours.

There is emerging evidence to suggest there may be no iatrogenic effects of suicide prevention programs in schools, suggesting universal and targeted self-harm interventions may be safely delivered to students. Further investigation is needed to build the evidence-base for this.

Current evidence for effective clinical interventions point to DBT-A and MBT-A for which training is expensive and delivered overseas. Workforce development for clinical interventions for self-harm need to consider trialing and testing modified and accessible alternatives including 'Good Clinical Care'.

There is a need to improve access to community-based, clinical and online interventions that respond to self-harm and mental ill-health for high-risk population groups, including ATSI young people, young people in immigration detention and in juvenile justice populations.

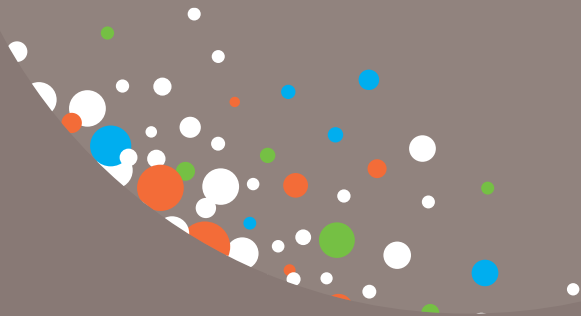
Careful high quality research is needed to better understand how social media may exert both positive and negative influences on young people at risk of self-harm and suicide.

There is a need to respond to duty-of-care considerations relating to self-harm and suicide-related behaviours in e-mental health service delivery for young people, and build national guidelines and support for ethical and inclusive online practice and engagement.

Mental health professionals, in partnership with young people, their families, researchers and software developers, should lead the development of web-based programs and mobile apps responding to self-harm to ensure fidelity and safety. These programs need an accessible interface to young people, their families and clinical practice.

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A systemic, multisectorial approach is needed, where all relevant stakeholders deliver joined-up, integrated and effective responses.



Section 5

What's needed— A joined up systemic approach

Both the World Health Organization report 'Preventing Suicide: A Global Imperative' (2014) and the National Mental Health Commission Review (2014) identified evidence that a systemic, community-based response to suicide prevention is likely to have the most significant impact on rates of suicide. So too responses to self-harm in young people could be best delivered through a systemic, multi-sectorial approach, where all relevant stakeholders deliver joined up, integrated responses that complement each other.

At the universal level, programs and initiatives are required that address stigma and facilitate conversations and encourage help-seeking, ensuring that the concerns of young people are legitimised and responded to early in the course of their distress and mental ill-health.

For young people and their families seeking support, there is a need for early intervention services across settings that are accessible, appropriate and informed and designed by young people with a lived experience of self-harm and their families.

For young people engaging in self-harm who come into contact with clinical or emergency services there remains a need to respond in a way that provides compassion, understanding and positivity. Standards of care should also include an early needs assessment, effective referral and opportunities for follow-up. These responses should be informed by evidence and delivered by a trained workforce in a non-judgemental and holistic way.

Underpinning this response should be principles of:

- **Early intervention** at points of identified risk or onset of self-harming behaviours;
- **Participation** of young people and their families, with and without a lived experience, in research and informing, designing and participating in service responses;
- **Evaluation** of all interventions to inform the evidence base for best practice;
- **Adequate resourcing and long-term commitments** as opposed to short-term piecemeal funding for school and community-based programs; and
- **Innovation** through identifying and responding to research gaps and identifying emerging models/ technologies to explore.

The following section describes in more detail a number of areas for action across systems and settings. This includes:

- Leadership from governments to position self-harm on the public health agenda and coordinate a national response;
- The development of appropriate and accessible service responses; and
- Workforce development.

National leadership in policy, data collection and research

A joined up, coordinated responses is required nationally, to assist in the identification of common focus areas and to leverage from, rather than duplicate, jurisdictional efforts, underpinned by a monitoring and implementation plan to track progress.

A national body could be established to develop this response and could consist of (but not be restricted to) representatives from across front-line clinical and emergency services, Indigenous groups, research bodies, the youth mental health sector, young people, education providers and statutory bodies.

Building the knowledge

There is a need to improve national data collection and monitoring of self-harm, and build on hospital admissions to include emergency departments and other community sources including youth mental health settings and online/telephone supports.

Prioritisation of a self-harm research and evaluation agenda is also required in order to address the current lack of knowledge regarding self-harm, address existing methodological barriers, investigate the potential role of technology and social media, and build the evidence base for effective interventions. Research funding to respond to this agenda could be allocated to the National Centre of Excellence in Youth Mental Health or prioritised through a National Health and Medical Research Council (NHMRC) targeted call for research, and/or other relevant grant funding processes.

Involving young people

The response should promote the engagement of young people in research, program and policy development. This should include the development of guidelines to support researchers to directly engage young people who have a lived experience of self-harm, and their families, in the prioritisation of research, knowledge translation and program evaluations.

Effective responses to self-harm across settings and services

All relevant health, community, educational and service settings need to work together across their communities to deliver evidence-based responses and interventions to self-harm. As identified, there is still significant work to be done to build the evidence base for effective interventions in self-harm. However, there are a number of areas that show promise, and with a commitment to build robust evaluations into program designs, their implementation could assist in addressing the gaps in evidence.

Reducing stigma and improving mental health literacy in the community

Self-harm is still very much stigmatised in the Australian community. There is a need for both national agencies and local communities to raise awareness and encourage help-seeking among youth with mental health issues and/or self-harm. These responses should be developed by young people with a lived experience, their families and youth mental health service providers and should encourage people to talk about self-harm safely. As there is currently little evidence on the efficacy of awareness campaigns for self-harm, all campaigns need to be rigorously evaluated.

Self-harm and mental health education and support resources for both young people and their families need to be developed (including online and peer supports), informed by people with a lived experience of self-harm. In addition, gatekeeper training of key community members is required to address stigma, and to increase their capacity to help and support these young people appropriately.

Building the capacity of schools to respond

Schools are struggling to respond to self-harm. Issues such as contagion are of particular concern. Training (such as gatekeeper training) and resources that support school staff and the broader school community to respond specifically to self-harm need to be funded, rolled out consistently and rigorously evaluated for impact both on staff confidence and also on actual self-harming behaviours.

In addition, evidence-based guidelines are required to support schools to better respond to young people engaging in self-harming behaviours; to improve outcomes for the young people themselves and to reduce the risk of contagion. The development of these guidelines should be led by Orygen, the National Centre of Excellence in Youth Mental Health, in partnership with young people, international experts the field, and schools. Similar guidelines have been developed to assist schools manage a student suicide but there are no such guidelines with regard to self-harm, despite its prevalence and negative and widespread sequelae.

Increasing access to early intervention and high quality care

Early intervention services for young people who are at high-risk or, who are presently engaging in self-harm are critical. More youth-friendly mental health services (both on and offline) and training for professionals are required both in the early stages of distress, at the onset of self-harming behaviour and early on discharge from medical or psychiatric care after an instance of self-harm. These services should have the capacity to identify possible self-harm, support disclosure, provide evidence-based and high quality interventions, provide connection with other systems and services, and provide care over the entire period of time it is required.

Further investigation is required into the low usage of youth mental health services and supports (both on and offline) particularly by high-risk groups of young people, including ATSI young people, young men and young people in detention. Service models that provide for outreach to these groups should be explored further.

Improving the front-line experience

Development of a national set of standards of care is urgently required. These should detail appropriate ways for front-line professionals (including clinical and non-clinical staff) to respond to young people who present with self-harm. These standards should focus on responses that are understanding, empathetic, non-judgemental, optimistic (i.e., engender hopefulness) and motivating.

Stepped models of care

It is essential that young people discharged from hospital following an episode of self-harm are provided with appropriate referral pathways into community care. It is important that this point of referral can be integrated with other identified services such as relationship counsellors, drug and alcohol services, and youth mental health services to provide seamless care and support. Primary Health Networks that can coordinate local service pathways between hospitals, primary care providers (including GPs and mental health nurses) and community agencies are in an excellent position to identify local referral pathways and protocols after an incident of self-harm. They can also identify gaps in the skills and capacity of local professionals to deliver care and coordinate training and workforce development.

Community-driven and culturally appropriate

There is a need to address the over-representation of ATSI young people engaging in self-harming behaviours. Culturally appropriate interventions should be recognised and supported for particular populations with a high prevalence of young people engaging in self-harm. This includes the continued resourcing and evaluation of evidence-based and culturally appropriate programs for ATSI young people.

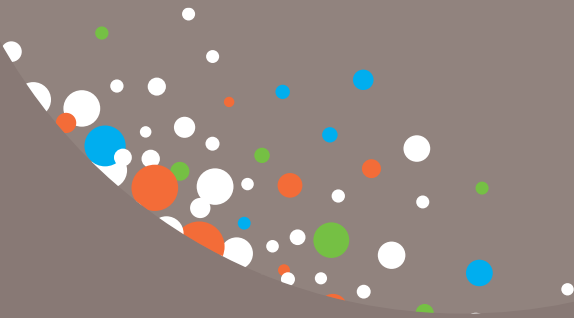
Workforce development

A significant component of a systemic approach to addressing self-harm must be the development of a whole-of-community workforce. As outlined throughout this paper, the Australian workforce is currently ill-equipped to respond to self-harm effectively and sensitively. In many cases, poor service responses increase stigma and barriers to help-seeking, thereby compounding the harm.

Building the capacity of all relevant workforces to respond to self-harm is an urgent priority. This includes training to deliver high quality early intervention and support services for young people who are self-harming or experiencing mental ill-health and distress. Given that training for evidence-based treatments for self-harm such as DBT-A and MBT-A is expensive, time-consuming and may require extended leave to travel overseas to attend courses and refresher sessions, upskilling a workforce to deliver these interventions, while desirable, may present challenges. Therefore consideration should be given to developing and testing modified and more accessible alternatives (including the incorporation of aspects of DBT into treatment) and increasing a focus on workforce capacity to deliver high quality care.

Workforce development also requires training on the proposed national standards of care for all clinical and non-clinical staff in contact with people who self-harm. The United Kingdom's NICE standards of care for self-harm (NICE, 2004, NICE, 2012) provide an excellent basis for the development of an Australian set of standards. These standards should include: compassionate responding, provision of an initial needs assessment and the development of a management plan to reduce the risk of repetition. As per the NICE guidelines for the longer-term management of self-harm, it is recommended that training for these standards is provided every two years (NICE, 2012). Young people who self-harm should be involved in the development and delivery of training to front-line staff. Regular training would ensure the standards and competency levels are maintained and that the quality and experience of front-line service provision is improved for people who self-harm.

Self-harm is still very much stigmatised in the Australian community. There is a need for both national agencies and local communities to raise awareness and encourage help-seeking.



Section 6

Future directions

National Action

As identified by the National Mental Health Commission Review, 2014, and subsequently committed to by the Australian Government, a renewed National Suicide Prevention Strategy is required to respond to the increased risk of suicide in young people who engage in self-harming behaviours.

The Council of Australian Governments (COAG) could establish a national cross-sectorial body to address the rates of self-harm among young people. This body should be responsible for developing a national response to self-harm which:

- Describes an integrated systems approach with a focus on prevention, early intervention and improving help-seeking behaviours among young people engaging in self-harm, to be trialed in four identified Primary Health Network areas (selected to reflect national demographics) from 1 July 2016;
- Identifies a coordinated action plan to address the significant gaps in national data collection and monitoring, evaluation, service design and workforce development and develop a coordinated action plan by July 2016;
- Can be actioned by all relevant departments, state and territory governments, young people, their families and service systems; and
- Includes a commitment to evaluate and measure progress.

Better standards of care

The standards of care for young people who self-harm urgently need to be improved. National evidence-based standards of care and training for professionals (clinical and non-clinical) responding to self-harm are required immediately.

Training should be delivered every two years to all local health organisations, including general practice, mental health nurses, emergency departments, ambulance staff, police, community – managed mental health and community and acute mental health clinical services. The standards and training should:

- Focus on compassionate, understanding and positive responses;
- Include a needs assessment, including mental health assessment;
- Be developed and delivered with the participation of people who have previously engaged in self-harm; and
- Be included within a national roll out of youth mental health workforce development.

Improved data collection

There is a need to address the current lack of data and data collection systems in Australia for self-harm (including detailed information for specific cohorts of young people) to inform policy and program development and measure the impact of interventions delivered. This should be done through:

- The replication and scaling-up of the sentinel data system currently being implemented Newcastle, as per the UK-based Multicentre Study approach, to other hospitals around Australia. These hospitals should be selected based on their capacity to reflect national demographics and to up-scale existing data collection systems, and their willingness to follow the Newcastle model of admitting every presentation of self-harm. They should also be selected in communities where self-harm rates among young people are a concern.
- The inclusion of questions relating to self-harming and risk-taking behaviours in an upcoming ABS National Survey of Mental Health and Wellbeing and including self-harm in all relevant National Minimum Data Sets. This should include targeted data collection strategies to increase the sample of young people and high-risk groups of young people.
- Producing a report focussing on young people's (12-25 years) access to ATAPS Tier 2 Priority Suicide Prevention, including an analysis on socio-demographic data, reason for referral (including self-harm), principal diagnosis, treatment duration and outcomes. Where these data sources are currently unavailable they should be included in the ATAPS minimum data set.

Trial early intervention responses

From 2016-17, trial and evaluate an enhanced early intervention response in ten headspace centres to all presentations of self-harm for young people within the community. This trial should be conducted over a two-year period and will require additional resources, training and supervision for staff to provide high quality and stepped care responses for young people who in self-harm (including outreach to particularly high-risk groups), It should include:

- A 'no wrong door' approach for early help-seeking for self-harm in the absence of diagnosed mental illness;
- Suicide risk and mental health assessments;

- Guided self-help support for underlying stress, anxiety and depression and support the development of alternative coping mechanisms;
- Coordinated care and guided local referral pathways into specialised clinical treatment if required;
- A step-down care response within 24 hours for young people referred at discharge from medical care after an instance of self-harm; and
- A complimentary national online resource providing access to counselling, support, guided self-help and referral pathways for self-harm through eheadspace.

Support schools to respond

There is a need to build the capacity of school staff to respond to incidences of self-harm in students and raise awareness in school communities about the nature and impact of self-harm (including contagion). This could be achieved through:

- Funding provided to Orygen, the National Centre of Excellence in Youth Mental Health, to lead the development of evidence-based guidelines to support schools respond effectively to young people engaging in self-harming behaviours;
- Systematic training and workforce development for staff to identify, understand and support young people who are self-harming;
- Consideration as to how responses and conversations around self-harm could be included in a) MindMatters, or b) the new single integrated end-to-end school based mental health programme announced by the Australian Government in its response to the National Mental Health Commission Review.
- Other jurisdictions could consider funding the roll out SAFEMinds program in their state/territory with a commitment to contribute to a formal, nationally coordinated, evaluation to inform future directions for this program; and
- Improving mechanisms for referral between schools and community and youth mental health services (such as headspace and eheadspace).

Improve access to e-mental health

There is a need to provide access to reputable and evidence-based e-mental health technologies that can respond to self-harm in young people and can be integrated into treatment delivered by clinical and youth mental health services. To deliver this a centralised registry is required for all e-mental health technologies providing interventions for self-harm. The registry should be supported by staff with the capacity to evaluate and provide accreditation to web-based programs and mobile apps based on their safety and effectiveness, including:

- Fidelity of content;
- Clinical expertise of the program developers; and
- Accessibility and efficacy for use among high risk populations.

This registry also requires an interface that is accessible for clinicians, young people and their families.

Orygen, the National Centre of Excellence in Youth Mental Health, in partnership with the Young and Well Cooperative Research Centre should also establish a duty-of-care policy and practice framework to respond to the medico-legal issues in responding to young people's mental health needs through online platforms (including the 'pointy' end of self-harm and suicidality).

Involve young people who self-harm in the development of effective responses

To address stigma and misunderstandings around self-harm, there is a need to involve young people with a lived experience of self-harm and their families as key partners in research, policy, service system responses and program development.

Orygen, the National Centre of Excellence in Youth Mental Health, could engage young people, their families and other key partners to develop:

- A series of self-harm specific resources, which focus on addressing stigma and promoting help-seeking and healthier behaviours to build community awareness which can be evaluated;
- Innovative approaches to involve young people who self-harm directly and safely in researching self-harm and suicide-related behaviours;

- Tools and resources to support clinical practitioners, health services and youth mental health service providers (online and offline) to engage young people who have a lived experience of self-harm and their families in their service design, program development and workforce development.

Respond to research gaps

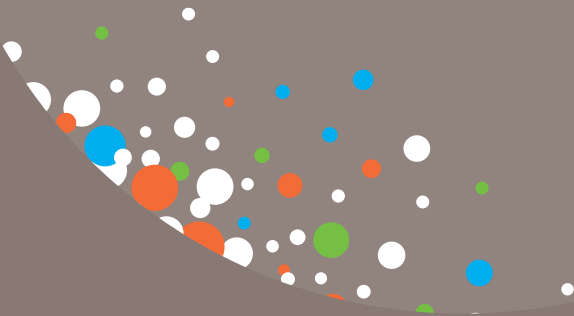
There are critical gaps in research on self-harm in Australian young people. Addressing these gaps should be prioritised through a national research agenda delivered through either: 1. Orygen, the National Centre of Excellence in Youth Mental Health (as recommended in the Children's Rights Report, 2014); or 2. A NHMRC targeted call for research. The agenda should:

- Require the inclusion of outcome data for self-harm in other clinical trials and studies of youth mental health interventions (e.g., for mood disorders, personality disorders, anxiety disorders) in clinical, community and school-based settings;
- Address the current methodological and ethical challenges for self-harm research, including the need to develop large-scale multisite studies and compliant online platforms to engage large populations, and culturally sensitive approaches to evaluating community-based responses;
- Build the evidence base of effective prevention and early intervention programs for self-harming behaviours, including a greater understanding of protective factors and issues relating to contagion, and a focus on high-risk groups such as Aboriginal and Torres Strait Islanders;
- Investigate the community prevalence and long-term outcomes for young people who self-harm including the relationship with other risk-taking behaviours.

.....

Young people should be able to talk about it because pretending that it doesn't happen, wont help it at all.

Young person



Section 7

Conclusion

This paper has examined what is known about the nature and prevalence of self-harming behaviours in young people, both in Australia and internationally. It has highlighted the many gaps in data and research that still exist and that prevents us from developing a better understanding of both the nature and prevalence of these behaviours and evidence for effective interventions.

The paper also focusses on the significant barriers to help-seeking these young people experience. Many of the barriers are personal (such as low mental health literacy) or structural (such as limited access to appropriate and effective services). However, the biggest barrier remains the significant stigma surrounding self-harm. It is of great concern that young people who self-harm and their families experience this stigma and negative responses from not only community members, but also from health care professionals. As such, one of the key recommendations of this paper is to address self-harming behaviours among young people through the development of national standards of care requiring compassionate and helpful responses to self-harm.

However, self-harm is not just an issue for the health system to respond to. A systemic, multi-sectorial approach is needed, where all relevant stakeholders (including schools, families, mental health organisations, primary care systems, as well as hospitals and emergency services) deliver joined-up, integrated effective responses that complement each other.

So what does a compassionate and helpful response to self-harm across all these settings look like? The answer is actually quite simple. As this paper has strongly recommended throughout, rather than continue to turn our backs on the issue there is a need to look the other way and address it. It is important that as a community we talk to young people who self-harm, involve them in research, program design, training and policy development so that we may better understand and respond. As such, this paper concludes with one young persons story highlighting just how important caring and coordinated community responses are for effective interventions and recovery from self-harm.

“

I struggled with mental illness and self-harm during high school and it was the help and support I received from those around me that led to my recovery. It was one of my teachers who noticed the change in my behaviour and realised something was wrong before I did. She suggested I see the school counsellor. After a couple of sessions with the school counsellor, I was referred to headspace. After meeting with a clinician there, they suggested Orygen Youth Health Clinical Program would be a better place to receive treatment.

While I was having weekly meetings at Orygen, I was also seeing the school counsellor on a daily basis so she could check in with me so make sure I was safe. She provided me with a list of phone numbers to use out of school times if I needed to talk to someone, which was particularly helpful because nights were the worst for me. Lifeline, Kids Help Line and e-headspace were all great resources that I used more than once. The school counsellor also encouraged me to tell my family what was going on and met with my mum to explain the behaviour and what she could do to help. Mum was a great help and would always be there to talk or just sit with me when I needed it. Mum and the school counsellor spoke every couple of days over the phone to make sure I was ok and if they noticed my condition getting worse. The teacher who noticed my behaviour would also come past, talk to me about how I was feeling every day, and ask if there was anything she could do for me. I would see my case manager once a week and would call her whenever I was feeling unsafe and she would talk me through what I could do to calm myself down.

All of these people showed genuine concern for me and went beyond their job descriptions, working together to keep me safe. Treating me as a person rather than someone who self-harms and recognising my individual circumstances lead to my recovery.

Appendix 1.

Summary of key prevention and early intervention programs for young people who engage in self-harm and/or make suicide attempts and/or who are at risk of engaging in self-harm and/or suicide attempts.

Author	Response	Setting	Country	Program Name	Program Description	Participants	Main Finding/s	Self-Harm/Suicide Finding/s
Level II (RCTs) (Aseltine and DeMartino, 2004)	Universal intervention	School	USA	Signs of Suicide (SOS)	SOS: sessions (number and duration not specified) based on principles of ACT in which participants are taught skills to recognise warning signs, how to show others they under-stand and want to help, and how to refer persons to appropriate sources for help. The program also consisted of a self-screening component to help students recognise signs of depression and/or suicidal thinking in themselves. Control: standard health and/or social studies classes.	2,100 adolescents (average age unspecified) attending one of five public high schools	Significant improvements in knowledge and attitudes were also observed. However, SOS was not associated with any significant effects for help-seeking behaviour or for suicidal ideation.	Significant effect on suicide attempts was observed. Those who received the SOS program were 40% less likely to report attempting suicide during the three-month follow-up period than those in the control group.
(Aseltine et al., 2007)	Universal intervention	School	USA	Signs of Suicide (SOS)	SOS: as above. Control: standard health and/or social studies classes.	4,133 adolescents (average age unspecified) attending one of nine public high schools	Significant improvements in knowledge and attitudes were observed. However, SOS was not associated with any significant effect for help-seeking behaviour or for suicidal ideation.	Significant effect on suicide attempts was observed. Those who received the SOS program were 40% less likely to report attempting suicide during the three-month follow-up period than those in the control group.
(Klingman and Hochdorf, 1993)	Gatekeeper training	School	USA	N/A	Intervention: 12-weekly one-hour sessions based on CBT modification techniques comprising distress coping skills, including self-harm, exercises to improve attitudes towards those who engage in self-harm. Control: no intervention.	237 adolescents (average age unspecified) attending one of eight local high schools	Significant improvements in knowledge, particularly with regard to sources of help, were observed.	

Appendix 1. (continued)

Author	Response	Setting	Country	Program Name	Program Description	Participants	Main Finding/s	Self-Harm/Suicide Finding/s
(Schilling et al., 2014)	Universal intervention	School	USA	Signs of Suicide (SOS) Middle Schools	SOS: as above with the addition of units on self-injury and bullying as well as an interview with the school counsellor to model help-seeking. Control: unclear, possibly no intervention.	386 adolescents (average age unspecified) attending one of eight military middle schools	Significant improvements in knowledge, but not attitudes, help-seeking behaviour, or suicidal ideation, were observed.	No significant effect on suicide attempts was observed, although there were only five such attempts across the entire sample so this may be due to a lack of statistical power.
Level IV Evidence (case studies reporting post- or pre- and post-test outcomes)								
(Arensman and Coffey, 2001)	Gatekeeper training	Community	Republic of Ireland	N/A	Intervention: a one-off session (delivered either over a three-hour or eight-hour period) in which participants are taught to identify warning signs, explore attitudes towards those who self-harm, the needs of those who self-harm, and confidence and work practices relating to working with people who self-harm. Control: N/A.	275 employees in social, health, education, community, police, or business sectors. Average age 39.5 years. Average number of years' experience in their respective sector was 8.6	Significant improvement in knowledge of self-harm, attitudes, and confidence in dealing with people who self-harm immediately post-intervention were observed.	
(Lehfeld et al., 2004; Hegerl et al., 2003)	Awareness campaign	Community	Germany	N/A	Intervention: Posters, letter-box drop, cinema advertisements, press conferences, and a series of public events combined with gatekeeper training, and provision of an emergency card for patients receiving treatment for depression. The campaign was conducted over a nine month period. Control: N/A.		No improvement in attitudes towards help-seeking observed.	An 18% decrease in number of suicide attempts was observed; particularly for younger age groups (≥ 18 years but < 50 years). Unclear if this was significant.

Appendix 1. (continued)

Author	Response	Setting	Country	Program Name	Program Description	Participants	Main Finding/s	Self-Harm/Suicide Finding/s
(Muehlenkamp et al., 2010)	Universal intervention	School	USA	Signs of Self-Injury (SOSI)	SOSI: a one-off intervention consisting of information on warning signs, triggers, and symptoms designed to improve attitudes towards those who engage in self-harm, confidence and capacity to respond to suicidal behaviours in peers, and help-seeking. Control: N/A.	274 adolescents (average age 16.1 years) attending one of five high schools	Significant improvements in knowledge of self-injury and desire to help, but no significant difference in help-seeking behaviour observed.	There was a trend towards reduced rates of NSSI in the month following implementation as compared to rates in the month prior to implementation.
(Robinson et al., 2008)	Gatekeeper training	School	Australia	N/A	Intervention: two-day training course composed of five sessions in which staff are encouraged to explore attitudes towards self-harm, recognise and assess risk, plan and manage risk appropriately, therapeutic techniques to prevent self-harm, and how to refer at-risk pupils to specialist mental health services. Control: N/A.	169 school welfare staff (average age 42.5 years). Average number of years experience not specified	Significant improvements in confidence and perceived skill in addressing self-harm observed. Significant improvements in knowledge also observed immediately post-intervention.	

Appendix 2.

Summary of key clinical interventions for young people who engage in self-harm and/or make suicide attempts.

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/ Suicide Finding/s
(Hawton et al., [in press])	Meta-analysis of clinical interventions	N/A	Multi	N/A	1,126 adolescents (average age 15.3 years) presenting to clinical services following at least one episode of SH in the six months preceding study inclusion. All were participating in any of the trials summarised in the Level II (RCTs) section below. This review did not include adult participants, or adolescents experiencing suicidal ideation (rather than suicidal behaviour specifically).	Most interventions are evaluated in only single RCTs with a small (<100) sample size, meaning they may lack statistical power to detect rare events like repetition of SH and suicide. Most RCTs are of low quality, owing to lack of blinding of outcome assessors. There have also been no RCTs of pharmacological treatments to date.	Only one intervention, group-based psychotherapy, has been evaluated by more than one independent RCT; however, meta-analysis did not indicate any significant effect. DBT-A and mentalisation show some promise in reducing SH according to longitudinal but not cross-sectional analysis; however, these findings require further replication.
(Ougrin et al., 2015)	Meta-analysis of clinical interventions	N/A	Multi	N/A	2,176 adolescents (average age 14.7 years) presenting to clinical services either with SH, suicidal ideation (i.e., with no evidence of suicidal behaviour specifically), or with borderline personality disorder symptoms. Included participants from Level II (RCTs) although not all RCTs summarised in the section below were included in this review.	There have been no RCTs of pharmacological treatments or of combined psychological and pharmacological interventions to date. The authors of this review also highlight the low number of well-designed RCTs in this area.	This review combined all interventions and found that, together, these interventions are associated with a significant reduction in the proportion of participants repeating SH; however, with considerable variability between the different trials. Meta-regression analyses suggest interventions that include a family therapy focus and/or are delivered over multiple sessions result in a stronger reduction. The authors also conclude, on the basis of the individual effect sizes for each type of intervention, that DBT-A and mentalisation show most promise.

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/Suicide Finding/s
Level II (RCTs)							
(Colgrove et al., 1995)	Clinical intervention	Emergency cards	UK	<p>Emergency cards: standard psychiatric management comprising individual psychotherapy sessions and an emergency card that could be used to gain admission to local emergency departments on demand.</p> <p>Control: standard psychiatric management comprising individual psychotherapy sessions.</p>	105 adolescents (≤16 years) admitted to one of seven local hospitals following an episode of SH.		Although twice as many adolescents in the control group had a repeat episode of SH in the one-year follow-up period (12% vs. 6%) this difference was not significant.
(Donaldson et al., 2005)	Clinical intervention	Problem-solving therapy	USA	<p>Problem-solving therapy: six fortnightly individual psychotherapy sessions focussed on providing participants with skills to improve problem-solving and mood management, one family therapy session in the first three months of treatment, and a maintenance period of monthly sessions of individual psychotherapy for three further months. Additional family therapy and crisis management sessions were also available as required.</p> <p>Control: six fortnightly individual psychotherapy sessions focussed on mood management only, one family therapy session in the first three months of treatment, and a maintenance period of monthly sessions of individual psychotherapy for three further months. Additional family therapy and crisis management sessions were also available as required.</p>	39 adolescents (12-17 years) presenting to paediatric emergency services or the inpatient unit of a local child psychiatric hospital following a suicide attempt (with intent to die).	There was no significant difference between groups at 6 or 12 months follow-up for depression, suicidal ideation, anxiety, or problem-solving scores.	There was no significant difference between groups in frequency of suicide reattempts by the six-month follow-up period. No adolescent died by suicide over the 12 month follow-up period.

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/ Suicide Finding/s
(Green et al., 2011)	Clinical intervention	Group-based psychotherapy	UK	Group-based psychotherapy: six weekly manualised group therapy sessions comprising elements of cognitive behaviour therapy and DBT followed by weekly sessions continuing for as long as required. Control: approx. ten weekly individual-based psychotherapy (control participants were specifically excluded from any group-based psychotherapy).	366 adolescents (12–17 years) presenting to local child and adolescent mental health services with a history of at least two episodes of SH within the previous 12 months.	There was also no significant difference between groups for suicidal ideation or depression scores. Economic evaluations also indicated that group-based psychotherapy was no more expensive than control.	There was no significant difference between groups for the proportion of participants with a repeat episode of SH and/or repeat episode of self-poisoning at either the six-month or one-year follow-up. There was also no significant benefit for group-based psychotherapy on time to repetition of SH, or on severity of SH episodes.
(Harrington et al., 1998)	Clinical intervention	Home-based family therapy	UK	Family therapy: one assessment session (hospital-based) followed by four fortnightly manualised home-based family therapy comprising elements of problem-solving and developmental therapy. Control: treatment as usual comprising an unknown number of hospital-based individual psychotherapy sessions.	162 adolescents (≤ 16 years) referred to the mental health team of one of four local hospitals following an episode of self-cutting and/or attempted self-hanging.	There was no significant difference between groups for suicidal ideation or hopelessness scores at the post-intervention (two-month) or six-month follow-up points.	There was also no significant difference between groups on the proportion of participants with a repeat episode of SH at the six-month follow-up point.
(Hazell et al., 2009)	Clinical intervention	Group-based psychotherapy	Australia	Group-based psychotherapy: six weekly manualised group therapy sessions comprising elements of cognitive behaviour therapy and DBT followed by weekly sessions continuing for up to 12 months. Control: weekly sessions of individual-based psycho-therapy, family therapy sessions, medication assessment and review as required, and care coordination activities.	72 adolescents (12–16 years) referred to child and adolescent psychiatric services with a history of at least two episodes of SH over a one-year period with one a minimum of three months prior to referral.	There was also no significant difference between groups for the proportion of participants meeting diagnostic criteria for depression or for suicidal ideation scores.	Participants randomised to group-based psychotherapy were significantly more likely to engage in a repeat episode of SH at the six-month follow-up. There was no significant difference between groups at the one-year follow-up for either SH or self-poisoning specifically, however. There was also no significant benefit for group-based psychotherapy on time to repetition of SH.

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/ Suicide Finding/s
(Mehlum et al., 2014)	Clinical intervention	DBT-A	Norway	DBT-A: weekly individual psychotherapy sessions; weekly family therapy sessions; telephone coaching as needed over a 19-week treatment period. Control: described as 'enhanced usual care' comp-rising no less than weekly individual psychotherapy sessions over a 19-week treatment period.	77 adolescents (12-18 years) newly referred to mental health services who report at least two episodes of SH within a one-year period and who also met: 1. At least one criterion for BDP according to DSM-IV (at least one of which is the SH criterion); 2. At least two subthreshold level criteria for BPD according to DSM-IV.	Suicidal ideation scores in both groups reduced over the treatment period, with a significant difference only noted between groups during the last four weeks of the program. There was also a significant difference between groups for clinician-rated depression scores. However, there were no significant differences between groups for self-rated depression scores or for borderline symptom scores.	Frequency of SH episodes reduced significantly over the treatment period for adolescents in the DBT-A group but not the control group. There were no suicides in either group throughout the 19-week treatment period.
(Ougrin et al., 2011; Ougrin et al., 2013)	Clinical intervention	Therapeutic assessment	UK	Therapeutic assessment: comprising one psychosocial history and suicide risk assessment, and at least four sessions of manualised cognitive analytic therapy involving strategies for enhancing capacity and motivation for change over a three-month period. Control: one psychosocial history and suicide risk assessment session.	70 adolescents (12-18 years) presenting to local hospital emergency departments following an episode of SH, and referred to one of two local child and adolescent psychiatric services for a mental health assessment.	Participants randomised to therapeutic assessment were significantly more likely to attend at least four therapy sessions over the three-month treatment period, and attended more sessions overall. However, there were no significant differences between groups in terms of psychological functioning over the one-year follow-up period.	There was no significant difference between groups for either the proportion of participants with a repeat episode of SH or for frequency of SH episodes over the two-year follow-up period.
(Rossouw and Fonagy, 2012)	Clinical intervention	Mentalisation-based therapy	UK	Mentalisation: comprising manualised weekly individual psychotherapy sessions, monthly family therapy sessions over a one-year treatment period. Control: comprising either individual psychotherapy alone, cognitive behavioural therapy alone, psychodynamic psychotherapy alone, psychiatric case review, or a combination of individual and family-based therapy.	80 adolescents (12-17 years) referred to local psychiatric services following at least one episode of SH in the previous month.	There was no significant difference between groups on a risk-taking inventory at 12 months; however, there was a significant difference between groups for depression scores.	Although both groups demonstrated a reduction in SH frequency over the 12-month follow-up period, the rate of decline was greater in the mentalisation group. There was also a significant difference between groups for the proportion with a repeat episode of SH at 12 months' follow-up. Scores on a self-harm risk inventory were also lower for the mentalisation group at 12 months.

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/ Suicide Finding/s
Spirito (2002)	Clinical intervention	Compliance enhancement	USA	<p>Compliance enhancement: a one-hour hospital-based intervention designed to establish expectations for commitment to outpatient psychotherapy, plan for expected barriers to adherence, and agree to a verbal 'no suicide' contract.</p> <p>Control: standard discharge planning, which varied according to the risk of the patient with some receiving a short inpatient psychiatric admission whilst others were discharged to ongoing outpatient-based psychotherapy</p>	76 adolescents and young adults (12-19 years) presenting to local hospital emergency departments following a suicide attempt.	There was no significant difference between groups on the number of outpatient psychotherapy sessions attended over the three-month follow-up period.	
(Wood et al., 2001)	Clinical intervention	Group-based psychotherapy	UK	<p>Group-based psychotherapy: a one-off psychosocial assessment followed by six weekly manualised group therapy sessions comprising elements of cognitive behavioural therapy and DBT, followed by weekly sessions continuing for up to six months. Antidepressants were prescribed as necessary.</p> <p>Control: up to 30 weekly sessions of individual supportive psycho-therapy and/or family therapy as required. Antidepressants were prescribed as necessary.</p>	63 adolescents (12-16 years) referred to child and adolescent mental health services with a history of SH at least one episode of SH over a one-year period.	There was no significant difference between groups for depression scores or suicidal ideation scores.	There was a significant difference between groups in the number of repeat episodes of SH over the six-month follow-up period and for the proportion classed as a 'repeater' (defined as two or more repeat episodes of SH during the follow-up period). The mean time to first repeat episode of SH was also significantly longer in the group-based psychotherapy group compared to the control group.
Level III-1 Evidence (pseudorandomised controlled trials)							
(Alavi et al., 2013)	Clinical intervention	Cognitive behaviour therapy (CBT)	Iran	<p>CBT: 12 sessions of CBT comprising elements of safety planning for times of crisis, cognitive restructuring, behavioural activation, mood monitoring, effective emotion regulation, problem-solving, and family therapy.</p> <p>Control: participants were placed on a wait-list for CBT.</p>	30 adolescents (12-18 years) diagnosed with depression admitted to local hospitals following a suicide attempt within a three-month period.	There was a significant difference between groups for depression, hopelessness and suicidal ideation scores at the two-month follow-up.	

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/ Suicide Finding/s
(Brent et al., 2009; Vitiello et al., 2009)	Clinical intervention	Treatment of Adolescent Suicide Attempters (TASA)	USA	TASA: a six-month combined psychological and pharmacological intervention comprising elements of a CBT program specifically adapted for suicidal persons (CBT-SP) and treatment using a medication algorithm. Control 1: six months of CBT-SP monotherapy. Control 2: six months of pharmacotherapy monotherapy.	124 adolescents (12–18 years) who had made a suicide attempt within 90 days of study inclusion.	Depression and suicidal ideation scores decreased in the TASA group over the six-month treatment period (no comparison with Control 1 or 2 provided, however).	Participants in the TASA group were significantly more likely to experience a 'suicidal event' (suicide re-attempt and/or heightened suicidal ideation necessitating hospitalisation, initiation of a crisis plan or change to a pre-existing treatment plan) than participants in control groups 1 and 2 combined.
(Deykin et al., 1986)	Clinical intervention	No name	USA	Intervention: participants in this program were assigned a specialist social worker who ensured adolescents attended their scheduled outpatient appointments, facilitated contact with other social services as required, and provided advocacy for the participant with school, the legal system, etc., as required. Control: unclear.	Adolescents (total number unclear) (13–17 years) admitted to emergency facilities following an episode of self-injury necessitating medical care.	Participants in the intervention group were twice as likely as those in the control group to adhere to their hospital discharge plan.	Although those in the intervention group were less likely to attend emergency facilities following a subsequent suicidal behaviour (severe suicidal ideation, suicide reattempts, and/or life-threatening behaviour), there was no significant difference between groups following adjustment for prior history of suicidal behaviour.
(Ramani Perera and Kathirarachchi, 2011)	Clinical intervention	Problem-solving therapy	Sri Lanka	Problem solving therapy: four hour-long sessions of PST over a one month treatment period, comprising identification of problems and derivation of alternative solutions. Control: referral to psychiatric and/or medical teams and/or social services as required.	124 adolescents (15–24 years) admitted to a local hospital following a suicide attempt and whose attempt was categorised as of low to moderate suicidal intent according to a validated scale.	There was a significant difference between groups in terms of the number with improved social and problem-solving skills.	There were two repeat suicide attempts in the control group versus none in the PST group at the post-intervention assessment; however, this difference was not significant.

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/Suicide Finding/s
(Rathus and Miller, 2002)	Clinical intervention	DBT-A	USA	<p>DBT-A: 12 twice weekly individual psychotherapy and family therapy sessions comprising problem-solving, development of communication and validation strategies, mindfulness, interpersonal effectiveness, distress tolerance.</p> <p>Control: 12 twice weekly sessions of individual psycho-therapy and family therapy based on psycho-dynamic or supportive therapy app-roaches designed to reduce acute distress and conflict.</p>	111 adolescents (approx. 12-19 years) admitted to an outpatient psychiatric clinic with a history of at least one suicide attempt and/or who had symptoms consistent with emergent borderline personality disorder.	Adolescents in the DBT-A group were significantly more likely to complete the full 12 weeks of treatment.	Although 2.5 times more adolescents in the control group reattempted suicide during the 12 week treatment period than in the DBT-A group, this difference was not significant. There was also no significant difference between groups in the number of suicide reattempts during this period.
Level III-2 Evidence (Comparative studies with contemporaneous controls)							
(Donaldson et al., 1997)	Clinical intervention	Psychotherapy compliance enhancement	USA	<p>Psychotherapy compliance enhancement: a one-off verbal contract between the adolescent and their parent/guardian to attend at least four psychotherapy sessions over an eight-week period. Psychotherapy consisted of telephone interviews covering problem-solving therapy, barriers to achieving compliance, and strategies to manage suicidal ideation.</p> <p>Control: unclear. Presumably standard discharge planning.</p>	101 adolescents (age range not specified) receiving medical treatment in a local hospital emergency department following a suicide attempt.	Twice as many participants in the psychotherapy compliance enhancement group as compared to the control group attended at least four outpatient sessions. Adolescents in the intervention group also attended a greater number of sessions, although this difference was not significant.	There was no significant difference in the proportion of participants reattempting suicide over the three-month follow-up period.
(Silburn et al., 1997) [†] , (unpublished data from Burns et al., 2005)	Clinical intervention	No name	Australia	<p>Intervention: adolescents were provided with a comprehensive psychiatric and risk assessment, liaison by community workers, referral to other psychiatric and/or social services as required, and a scheduled follow-up outpatient appointment one week after presentation.</p> <p>Control: unclear. Presumably standard discharge planning.</p>	547 adolescents (mean age 16.7 years; range not specified) presenting to local emergency departments following a suicide attempt.	Re-admission rates for a repeat suicide attempt were significantly lower in the intervention group as compared to the control group (14% vs. 19%).	

[†] Please note that whilst this study also had a historical control group, and therefore could also be categorised as Level III-3 Evidence, the outcomes presented in this section are based on the intervention group (N=324) as compared to the contemporaneous control group (N=223).

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/ Suicide Finding/s
Level III-3 Evidence (comparative studies with historical controls)							
(Rotheram-Borus et al., 1996, Rotheram-Borus et al., 2000)	Clinical intervention	Emergency room program to enhance treatment adherence	USA	Emergency room program to enhance treatment adherence: comprising a 20 min 'soap opera' style infomercial to explain emergency room procedures following SH to adolescents and their families and to demonstrate appropriate 'coping behaviour' in this environment; a one-off family therapy session to address precipitants of the suicide attempt, and referral to six sessions of family therapy delivered by a local outpatient psychiatry service. Control: standard medical evaluation and treatment and referral to six sessions of family therapy delivered by a local outpatient psychiatry service.	140 female adolescents (12-18 years) who were admitted to a local hospital medical unit for no longer than one week following a suicide attempt.	Adolescents in the emergency room program reported significantly lower depression and suicidal ideation scores immediately post-intervention. There was no significant difference in the proportion re-experiencing suicidal ideation at the 18-month follow-up, however. Participants in the emergency room program were also significantly more likely to attend their first scheduled outpatient appointment. However, they did not attend a significantly greater number of outpatient treatment sessions.	There was no significant difference in proportion of participants reattempting suicide during the 18 month follow-up period.
Level IV Evidence (case studies reporting post- or pre- and post-test outcomes)							
(Fleischhaker et al., 2011)	Clinical intervention	DBT-A	Germany	DBT-A: twice weekly individual psychotherapy and family sessions over a treatment period of between 16-24 weeks comprising elements of mindfulness, interpersonal efficacy skills development, distress tolerance and development of emotion regulation skills. Control: N/A.	12 adolescents (13-19 years) referred to an outpatient psychiatric service following an episode of NSSI and/or suicidal behaviour in the 16 weeks preceding study entry and who were also diagnosed with BDP or met at least three criteria for a diagnosis of BDP according to the DSM-IV.	Number of DSM-IV BDP criteria met decreased significantly from pre- to post-test one year later. There was also a significant improvement in functioning, illness severity, need for psychiatric treatment, quality of life, symptom severity, and depression scores.	There was a significant reduction in NSSI frequency from pre- to post-test (one year follow-up).

Appendix 2. (continued)

Author	Response	Setting Type	Program Name (if applicable)	Program Description	Participants	Main Finding/s	Self-Harm/ Suicide Finding/s
(James et al., 2015)	Clinical intervention	DBT-A	USA	<p>DBT-A: three-hour twice weekly individual and family psychotherapy sessions over a 16-week treatment period. Sessions comprised elements of mindfulness, interpersonal efficacy skills development, distress tolerance, and development of emotion regulation skills.</p> <p>Control: N/A.</p>	138 adolescents (12–18 years) with either a recent past history or current episodes of SH and who enrolled in a DBT-A program implemented within an intensive outpatient psychiatric service.	Functioning scores improved significantly over the 16-week treatment period.	
(Nixon et al., 2003)	Clinical intervention	Auricular acupuncture	Canada	<p>Auricular acupuncture: three sessions of bilateral auricular acupuncture over a three-week period. Sessions lasted 50 mins with five needles inserted at five points on the ear as per the Lincoln protocol. Between sessions participants were provided with adhesive metallic balls at these five sites to activate when they felt an urge to engage in SH.</p> <p>Control: N/A.</p>	Nine adolescents (approx. 14–18 years) currently receiving inpatient treatment and/or partial hospitalisation who were diagnosed with major depression, and who self-reported recurrent SH (defined as at least one episode per week over the past six months).	Depression scores did not significantly reduce over the four-week follow-up period, however, anger scores did.	There was a significant reduction in number of episodes of SH over the four-week follow-up period.
(Taylor et al., 2011)	Clinical intervention	Manualised Cognitive Behaviour Therapy (MCBT)	UK	<p>MCBT: between 8–12 fortnightly sessions of individual psychotherapy according to the Cutting Down Manual comprising emotion regulation, cognitive restructuring, enhancing coping and problem-solving skills, self-soothing, mindfulness, and information on alternatives to SH.</p> <p>Control: N/A.</p>	25 adolescents (12–18 years) referred to an outpatient child and adolescent psychiatry service with a history of more than one prior episode of SH.		There was a significant reduction in rates of SH from pre-test to post-test, and at three-month follow-up.

Appendix 3.

Summary of key mobile telephone applications (apps) for self-harm

Name	Platform Host	Country of Origin	Expertise of Developer	Price	Focus	App Description
Blue Ice	In testing phase	UK	Researchers	Not stated	Self-harm prevention	Users record their mood and feelings and can participate in mood lifting activities when they feel the urge to engage in self-harm.
Calm Harm	iOS, Android	UK	Mental health pro-motion charity	Not stated	Self-harm distraction and prevention	Users can schedule tasks according to four domains which help to distract them from the urge to self-harm: <ol style="list-style-type: none"> 1. 'Distract' tasks instruct the user to learn strategies for self-control; 2. 'Comfort' tasks instruct users to engage in caring rather than destructive activities; 3. 'Express' tasks instruct users to express their emotions differently; 4. 'Release' tasks provide users with safe alternatives to self-harm.
iCope	iOS	USA	Psychiatric nurses	\$3.79 (USD)	Self-harm distraction and prevention	Users rate the strength of the urge to engage in self-harm and are then either provided with distractions (for urges rated as low severity) up to practical suggestions of alternative behaviours to self-harm (for urges rated as high severity). Users must be over 17 years of age to download this app, however, given the use of frequent and realistic violence.
Heal Me!	Android	USA	Game designers	Free	Distraction	Users are provided with an avatar or can take a photo of themselves or another person and are then provided with tools to create cuts and other wounds on this image.
Hello Cruel World	iOS	USA	Survivor of suicide	Free	Distraction	Provides users with a series of 101 'crisis cards' that outline alternative behaviours to suicide adapted from the book <i>Hello Cruel World: 101 Alternatives to Suicide for Teens, Freaks and Other Outlaws</i> (K. Bornstein, 2006, New York, NY: Seven Stories Press).
Project Toe	iOS	Not stated	Not stated	Free	Self-harm prevention	By tapping on 'Toe' a user can request to communicate with another user about their self-harm urges to receive support and advice or by tapping on 'Help Schedule', the user can elect to be notified to provide support when another user reports urges of self-harm.
S.A.F.E Alternatives	iOS, Android	USA	Psychologist	\$1.29 (USD)	Self-harm prevention	Users complete up to five therapy logs: <ol style="list-style-type: none"> 1. An 'impulse log' in which users record thoughts of self-harm, the time and day that these thoughts occurred, the location, the trigger and the feelings associated with this thought; 2. A 'productivity risks log' in which users are encouraged to express needs or concerns that may be beyond the individual's comfort zone; 3. A 'confrontation log' in which users are challenged to confront their fears/anxieties; 4. A 'negative thinking log' in which users challenge their negative self-evaluations; and 5. A 'dilemma log' that encourages users to reflect on the steps they should take to resolve problems in their life. Users can also undertake self-harm risk self-assessments.

Appendix 3. (continued)

Name	Platform Host	Country of Origin	Expertise of Developer	Price	Focus	App Description
Self Injury Disease & Symptoms	Android	Not stated	Not stated	Free	Self-harm awareness and prevention	Users are provided with a series of static information screens designed to provide information on the causes, risk factors and symptoms of self-harm. Users are also informed as to the potential consequences of self-harm (e.g., infection) and are provided with advice on how to discuss self-harm with their health care professional.
Skarz Diary	iOS	Not stated	Psychologist	\$2.49 (USD)	Distraction and self-harm prevention	Users are encouraged to mark their calendar and complete a diary entry each time they engage in self-harm. Personalised feedback then enables users to reflect on their triggers and challenge negative thoughts. The app also provides distraction techniques for overcoming these urges. Users can also add their own distractors.
Stem4	iOS	UK	Psychologist	Free	Distraction	Similar to the <i>Calm Harm</i> app for Android except that users can outline tasks that last either 5 or 15 minutes depending on the strength of their self-harm urge. The app states it is based on the principles of dialectical behaviour therapy.
Stop Self Harm	Android	Norway	Not stated	\$3.51 (USD)	Distraction and self-harm prevention	Users can create audio recordings of sounds they find helpful in reducing the urge to engage in self-harm. Users can either play these recordings on demand or can schedule recordings to play after a specified period of time has elapsed, for example, if they know a potentially stressful situation will occur in two hours' time.
Talk Life	iOS, Android	UK	Not stated	Free	Self-harm prevention	<i>Talk Life</i> enables users to create an online community support network. Users can post self-harm urges, feelings, and other aspects related to their problems and other users can respond by offering advice and support.
The Hope Line	Android	USA	Linked to mental health promotion radio talk show	Free	Distraction and self-harm prevention	Users with suicidal thoughts and/or those who engage in self-harm are able to use the app to connect with trained counsellors either via a toll-free telephone number or free in-app messaging service to discuss feelings and to receive support. Users can also view photos posted by other users and can tune in to up to three different in-app radio stations which can act as distractions.
Understanding Self-harm	iOS	Not stated	Not stated	\$3.79 (USD)	Self-harm awareness and gatekeeper training	A cartoon character named 'Kelly', an adolescent female, guides the user through a series of exercises intended to outline common triggers for self-harm in this population, addresses stigma towards those who engage in self-harm, instructs users as to how to recognise the signs of self-harm in others, and how to talk to someone the user suspects may be engaging in self-harm.

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