POSITION STATEMENT
Youth Suicide Prevention

Suicide Prevention Australia
December 2010

About Suicide Prevention Australia

Suicide Prevention Australia (SPA) is a non-profit, community organisation working as a public health advocate in suicide and self-harm prevention, intervention and postvention. SPA is the only national umbrella body active in suicide prevention throughout Australia, promoting:

- Community awareness and advocacy;
- Collaboration and partnerships between communities, practitioners, research and industry;
- Information access and sharing; and
- Local, regional and national forums, conferences and events.

As a national organisation, SPA supports and assists both individuals and organisations throughout Australia, by promoting collaboration and partnerships in suicide prevention, intervention and postvention. SPA is supported by funding from the Australian Government under the *National Suicide Prevention Strategy*.

SPA Position Statements

SPA regularly publishes position statements on priority areas of suicide and self-harm prevention, intervention and postvention in Australia. These foundation documents provide a basis for understanding, discussion, teaching, delivery and research, and reflect the diversity of voices within the sector.

They are not intended to be specific to or limited to policy-makers alone, but are instead written with a general cross-section of the educated lay public in mind (i.e. broader community, media, and other NGOs). SPA Position Statements therefore represent a *starting point* for policy and strategy development, while supporting SPA's ongoing advocacy work and activities.

These documents are developed in close consultation with community and specialist reference groups and are ratified by the SPA Board. They are reviewed biannually with the intention of being reaffirmed, revised or retired, and generally do not refer to issues previously covered by other SPA Position Statements or by those currently in the process of being drafted.

The development of SPA Position Statements is supported by the Australian Government as part of its funding agreement with SPA. Position statements support and build on the *Living Is For Everyone (LIFE) Framework* developed under the *National Suicide Prevention Strategy*.

SPA Position Statements can be downloaded from the SPA website:
http://www.suicidepreventionaust.org/PositionStatements.aspx

Acknowledgments

SPA acknowledges the advice, support and involvement of those individuals and groups that contributed to the development of this position statement. Appreciation is particularly expressed to those who, through their participation, provided invaluable knowledge, expertise and experience. This includes members of the *Youth Suicide Prevention* SPA Reference Group, co-chaired by Jo Robinson, Orygen, and Dr Michael Dudley, Chairperson of SPA.

SPA also acknowledges and appreciates the ongoing contributions of the SPA Board and staff, particularly Chairperson, Dr Michael Dudley, and CEO, Ryan McGlaughlin. Thanks are also expressed to Research and Policy Development Coordinator, Sara Maxwell, for her assistance in researching and writing the position statement, and to Katrina Clifford for her sub-editing of the draft document.

Disclaimer

This material has been prepared for information purposes only, and represents the views of Suicide Prevention Australia, based on the best available evidence at the time of publication. While all reasonable care has been taken in its preparation, Suicide Prevention Australia makes no representation or warranty of any kind, express or implied, as to the completeness, reliability or accuracy of the information. This position statement is subject to change without notice, at the discretion of Suicide Prevention Australia, and as additional developments occur. Any links to third party websites are provided for convenience only and do not necessarily represent endorsement.

To access accurate information about suicide and the portrayal of suicide in the media, please visit:
http://www.mindframe-media.info/

For more information, please contact:

Ryan McGlaughlin, SPA Chief Executive Officer
Phone: +61 2 9568 3111   **Email:** info@suicidepreventionaust.org

Editorial Note

Youth: For the purposes of this position statement, 'youth' refers to anyone aged 12 – 25 years, although the upper age limit considers individual circumstances and is flexible in this regard. The need for programs to take account of the age and developmental period of their target group is of paramount importance, and child, adolescent, and young adult suicide prevention programs should be age appropriate and complementary.

Introduction

Although suicide is a tragedy at any age, youth suicide generates extreme levels of distress and loss in Australian communities. In 2008, suicide claimed the lives of at least 281 Australians aged 15 – 24 years, and was the leading cause of death for this cohort (ABS 2010). The difficulty in obtaining accurate suicide statistics for those under the age of 15 years and the sensitivity of the issue means that detailed data are not routinely published. However, it is estimated that more than 10 young people under the age of 15 die by suicide each year (ABS 2010). Approximately one in four deaths in the 15 – 24 year old age group is attributable to suicide (ABS 2010). While the largest number of suicide deaths occur in older adults (35 – 44 years), suicide attempts and self-harm are more common amongst young people (Slade et al. 2009).

Not only does suicidal behaviour cause immeasurable social and emotional costs to individuals, families, friends and communities, but it also has significant implications for the health and wellbeing of Australian society. In 2007–08, there were 9,203 hospital separations for suicide attempts and intentional self-harm for people aged under 24 years (AIHW 2009). Suicide accounts for 2.8% of the total burden of disease in Australia, but this rises to 8.5% for those under the age of 44 years (Begg et al. 2007). Each year, Australia loses the equivalent of 9,183 years of productive contributions, due to suicides of people under the age of 25 (Begg et al. 2007).

Suicide and suicidality are associated with a variety of biological, social and psychological factors, including traumatic life events and/or mental health conditions, such as depression, anxiety disorders, and borderline personality disorder. Resilience, self-esteem, connectedness, belonging, supportive environments and positive life events can be valuable safeguards against the effects of trauma and mental health conditions, and can protect from – but also be damaged by – suicidality. A recent report by Mission Australia (2009) indicated that 26.3% of youth considered suicide to be a major concern for them; second only to drugs (26.8%).

Data

Suicide statistics in Australia and internationally are often hampered by inaccuracies and inconsistencies. This results in levels of under-reporting, which may distort youth suicide data. This may be due to a number of reasons. Firstly, deaths caused by single vehicle transport accidents and overdoses (both common in young people) are often recorded as accidental deaths. Even given reasonable evidence, it can be difficult to establish intentionality with certainty. Secondly, coronial findings of accidental or undetermined intent of death are often made as some coroners do not believe that young people have the capacity to understand the finality of their actions. Thirdly, the stigma of suicide may influence coroners and others involved in investigating a death to make an undetermined finding to protect the family involved. Finally, due to the above issues and the sensitivity of youth deaths, suicides or suspected suicides in children under the age of 15 years are not included in the official ABS statistics.

Risk Factors

Suicide is a complex phenomenon that generally results from a combination of several suicide risk factors. Risk factors can generally be classified as individual, social and contextual and it is a grouping of these factors in young people that cause the greatest risk. Some factors can be considered distal – that is, they contribute to underlying risk of or protection against suicide. Others are proximal, meaning that they serve as tipping points (or 'the final straw') and may cause an individual to progress from suicide ideation to a suicide attempt. There are natural correlations between some factors, which can escalate risk. For example, depression is often associated with substance abuse, family dysfunction, homelessness, and/or personal crises.

Individual Risk Factors

Mental Illness

In Australia, young people experience a higher prevalence of mental health problems than older age groups, with approximately 26% of young people aged 16 – 24 years reporting a mental health problem in a 12-month period (ABS 2008). These are mostly anxiety disorders (15.4%), followed by substance use disorders (12.7%) and affective disorders (6.3%) (ABS 2008). The aetiology of mental disorders is complex and varied, incorporating hereditary, biological, social, and environmental factors.

Cosgrave et al. (2007) found that over half of all youths referred to a specialist mental health service had seriously considered suicide in the last 12 months. While most youth with a mental disorder will never display suicidal behaviours, the strong correlation between mental illness and suicidal behaviour is a cause for concern.

Research by the National Health and Medical Research Centre (NHMRC) found that up to 90% of young people who died by suicide or made a suicide attempt had at least one mental health problem at the time of attempt, and up to 50% of young people had a comorbid condition (Cantor et al. 1998). This is corroborated by studies of psychological autopsies, which show the high rates of psychiatric disorders in adolescents who die by suicide (Hawton & James 2005). Substance abuse, anxiety and depression are the most prevalent, and severity of depressive symptoms tends to correlate with the level of suicidality experienced (Brausch & Gutierrez 2010). The Queensland Commission for Children and Young People and Child Guardian (QCCYPCG) found that 43% of young people under 18 who died by suicide had a diagnosed disorder, while 50% had visited a health professional for a mental health problem, and 63% had experienced significant behavioural problems (QCCYPCG 2009).

Further to the suicide risk that young people with mental illness face, youth who have experienced adversities or traumatic life events may develop levels of mental distress that dispose them to suicide risk or long-term mental illness.

Substance Abuse

Substance abuse may increase suicide risk for young people (Pompili et al. 2005, Webb 2009) and may also contribute to social risk factors, such as homelessness, financial problems, and incarceration. Cannabis use, in particular, has been linked to suicidality and is associated with increased depressive symptoms in some users (Cosgrave et al. 2007). Similarly, comorbid depression and alcohol abuse has been associated with increased suicidality (Lamis et al. 2010).

Gender

Similar to suicide data across the lifespan, large gender disparities occur in youth suicide, with females more than twice as likely to attempt suicide, and males more than five times more likely to die by suicide (AIHW 2007, De Leo and Heller 2004). Young women and men vary in their willingness to seek help and their selection of method of suicide, accounting for some of the differences in suicide rates.

Previous Suicide Attempt

A previous suicide attempt is the strongest predictor of a future suicide attempt or suicide (Hawton & James 2005). Research suggests that up to 25% of those treated in emergency departments for a suicide attempt will make a future attempt and 5% to 10% will eventually die by suicide (Larkin & Beautrais 2010). Repeated suicide attempts are more likely if previous attempts have been medically serious (Beautrais 2003).

Self-Harm

Self-harm is defined as deliberate self-injury without intent of death, and is therefore different to suicide attempts. Current research suggests that between 7% and 14% of adolescents will engage in self-harm (Hawton & James 2005), with females over two times more likely to self-harm than males (Eldridge 2008). Although self-harming behaviours generally do not involve suicidal intent, there is strong evidence to suggest that people who engage in self-harming behaviours have a much higher risk of suicide than those who do not (AIHW 2007, Hawton et al. 2006, Hawton & James, 2005, Zahl & Hawton, 2004).

Social Risk Factors

Socio-demographic disparities in youth suicide give insight into potentially modifiable social factors that may increase risk, as opposed to biological factors which are often non-modifiable. Social risk factors can be targeted to help protect against suicide risk.

Childhood Adversities

Childhood adversities and traumatic life events are a precipitating factor in many youth suicides and suicide attempts. In Queensland, for example, 34% of youth who died by suicide were known to the Department of Child Services; indicating possible adverse circumstances (QCCYPCG 2009). Bullying, physical abuse, sexual abuse, and family violence are especially associated with suicide attempts, and the prevalence and severity of adversities often correlate with severity of suicidality (Hawton & James 2005, Bruffaerts et al. 2010). Young people with a history of sexual abuse are more likely to have repeated suicide attempts and their risk remains, at varying degrees, across the lifespan (Vadja & Steinbeck 2000).

Adverse events in adolescent social relationships can intensify depression and substance abuse and, thus, may enhance the risk of suicidality (Cheng & Chan 2007). Other stressful events, such as bereavement, interpersonal conflict, illness and traumatic events, can also serve as tipping points for youth who are already experiencing other risk factors of suicide.

Help-Seeking Behaviour / Use of Mental Health Services

The prevalence of mental health problems among young people is not reflected by their use of services; meaning that many avoid services and, subsequently, experience an increased risk of suicide. A recent review of youth suicides showed that 60% of all young people who had died by suicide had stated or implied their intent or reached out to others for help prior to their deaths (QCCYPCG 2009). However, young people are among the least likely demographic to seek professional help for a mental health problem; despite the support they express for other people to do so (Hickie et al. 2007, Kelly et al. 2007). Self-reliance (Wilson & Deane (In press)), the inappropriateness of services, stigma and embarrassment, and financial and geographic constraints, can all restrict young people's access to mental health services.

Indigenous

Indigenous youth are known to have a much higher risk of suicidal behaviour than their non-Indigenous peers (Hunter & Milroy 2006, Pridmore & Fujiyama 2009). The causes of high Indigenous suicide rates include social exclusion, substance abuse, socio-economic disadvantage, loss of culture, discrimination, and other social factors. These are compounded by rurality and incarceration; all of which disproportionately impact on Indigenous youth. For Indigenous males aged under 24 years, suicide rates are approximately three times the corresponding age-specific rates for non-Indigenous males, and suicide rates for young Indigenous women are approximately five times that of non-Indigenous young women (ABS & AIHW 2008).

(See SPA position statement, *Suicide Prevention and Capacity Building in Australian Indigenous Communities*, for more information).

Bullying and Social Exclusion

Bullying can cause negative physical and mental health consequences, including depression, anxiety, alienation, and suicidal thinking (Rigby 2005)**.** Research has also shown that young people affected by bullying, as both victims and bullies, are most at risk of poor social and emotional wellbeing, putting them at increased risk of suicidality (Rivers & Noret 2010).

Sexual Identity

Members of the gay, lesbian, bisexual, transgender and intersex (GLBTI) communities are much more likely to experience suicidality, suicide attempts and self-harm than their non-GLBTI peers (SPA 2009). Suicide risk among GLBTI youth is not as a consequence of their sexual identity. Rather, it is attributable to their social experience (or expected experience) of their sexual identity, including homophobia, bullying, heterosexism and transphobia; which contribute to isolation, poor social and emotional wellbeing, low levels of social support, and high levels of stigma (Bagley & Tremblay 2000).

Family Factors

Interpersonal family conflicts, parental loss, divorce and discord, family depression, and suicide history have previously been correlated with youth suicide risk (Kõlves 2010, Pompili et al. 2005, Burns et al. 2002, AIHW 2007, NHMRC 1999). Family conflict may serve as a triggering event following the culmination of other risk factors. This was demonstrated by a report on youth suicide in Queensland, which found that while 78% of children had an argument or relationship breakdown with a significant other (usually parent) prior to their suicide attempt, this was never the only risk factor present (QCCYPCG 2009).

Young people who act as carers for parents or other family members report significantly lower levels of emotional and mental health wellbeing than their peers (Cass et al. 2009). Young carers are also more likely to live in low-income households and have poor school retention rates and employment opportunities. This, coupled with the fact that many of these young people tend to care for parents with a mental illness (which has genetic and personal implications), greatly increases the risk of poor mental health and suicide for this youth cohort.

Contextual Risk Factors

Rural and Remote

Recent research has shown that male suicide rates are 33% higher in rural areas than in major cities, rising to 189% higher in very remote areas (AIHW 2010). Rural and remote areas of Australia experience unique challenges, many of which impact on young people. Under-employment, lack of infrastructure (including health and education services), restricted social and career opportunities, drought, and cultural stoicism may contribute to the distress of young rural dwellers. Young people in need of help for emotional or mental health problems often experience a lack of services and available information, particularly in remote areas, which often rely on general practitioners (GPs) for all health services. Furthermore, the accessibility of firearms in rural areas contributes to the lethality of youth suicide attempts.

Socio-Economic Disadvantage

Research has shown a link between low socio-economic status and suicide risk (Beautrais 2000, NHMRC 1999). Indeed, youth suicide and self-harm rates are typically higher in socio-economically disadvantaged areas than in other areas (Eldridge 2008). Low income can cause financial stress and increase vulnerability to social disadvantages, such as poor physical health, unemployment, substance abuse, social disengagement, criminality, and homelessness, which in turn can lead to poor mental health and wellbeing. Low educational attainment is also linked to suicide (Najem & Salem 2006), while also contributing to unemployment and financial problems. Furthermore, low educational attainment can lead to social isolation and a poor sense of identity and purpose (Response Ability).

Contagion Suicide

Suicidal behaviour is thought to have contagion properties that can cause copycat behaviours in other vulnerable individuals (NHMRC 1999). Suicidality in friends or family members, for example, has been shown to increase youth depression and reported suicidal thoughts (Barksdale et al 2008, Liu 2006). This is especially prevalent for girls (De Leo & Heller 2004).

Contagion suicide effects can extend beyond those who are personally close, with cluster suicides thought to occur among those who may have tenuous links, but are connected through a certain characteristic or factor of association (Booth 2010). In Queensland, 43% of child suicides contained some contagion properties (QCCYPCG 2009). Media depictions of suicide, which glamorise or normalise suicidal behaviour, may cause contagion suicides in vulnerable audiences (Pirkis & Blood 2010).

Homelessness

Homelessness increases risk of suicide among young people (Kamieniecki 2001). The loneliness, substance misuse, and low self-esteem that emanate from a homeless situation put youth at high risk for mental distress and suicidality, while the causes of homelessness, including family violence, being thrown out of the home, neglect and poor physical health, show similarly strong relationships with suicidality (Kidd 2004). Homeless youth in Australia have extremely high rates of psychological distress and psychiatric disorders and suicidal behaviour. The lack of services available for young homeless people needing social and emotional support compounds their suffering (NHMRC 1999).

Detention and Contact with Police

There are high rates of mental distress among the prison population as a whole, but suicide attempts and behaviour are especially prevalent in juvenile detention (NHMRC 1999). Cooper et al. (2002) found that, among youths who died by suicide, the second most frequent event preceding death was contact with the justice system; second only to interpersonal conflict. Adolescents on remand typically experience a wider range of mental and physical health problems than those in the general community, with 50% of adolescents on remand experiencing some level of suicidality (Sawyer et al. 2010a). In Queensland, 38% of youth who died by suicide had contact with the police or juvenile justice before they died (QCCYPCG 2009).

Suicidality among those in contact with juvenile justice may be a consequence of the distress caused by incarceration and the related proceedings. However, it may also relate to the increased likelihood of deviant or criminal behaviour among those vulnerable to suicide – for example, substance abusers and those with untreated mental illness.

Summary: Youth Suicide Risk Factors

Individual	Social	Contextual
Mental illness	Indigenous status	Rural and remote
Previous suicide attempt	GLBTI-identified	Socio-economic disadvantage
History of self-harm	Childhood adversities	Detention, contact with juvenile justice
Substance or alcohol abuse	Family dysfunction	Access to means of suicide
Physical ill-health	Restricted help-seeking	Homelessness
Male gender	Unemployment	Friends or family displaying suicidality

Protective Factors

Protective factors counteract suicide risk factors. The absence of many of the risk factors detailed above tends to be indicative of a level of protection against suicide risk. For example, mental wellbeing, a supportive family environment and accessible services can improve an individual's ability to avoid or manage individual and social risk factors. Contextual factors that contribute to risk, such as socio-economic disadvantage and social exclusion, often require structural and environmental changes at a community or national level to provide youth with adequate protection against suicidality. Protective factors include:

Individual Factors	Social	Contextual
Good coping skills	Family connectedness and support	Access to appropriate services
Personal resilience	Positive school environment	Economic security
Problem-solving skills	Social and community inclusion	Non-discriminatory environments
Optimism	Protection from adverse life events	Housing
Social and emotional wellbeing		
Ability and desire to seek help if necessary		

Prevention Programs

Suicide prevention programs attempt to mitigate risk factors and promote protective factors. Universal prevention programs target the whole population, while selective programs target high-risk groups, and indicated programs target individuals who have displayed significant risk.

It is estimated that over 80% of young people have a limited risk of suicide and that universal curriculum programs are therefore sufficient to protect their mental health. However, approximately 15% of children are at risk of suicide and require selected and targeted interventions. A final 5% need indicated individualised treatment (Kutash et al. 2006).

The case has been made that universal programs offer the best value-for-money and are the most prevalent youth suicide prevention programs in Australia. By targeting all young people with brief prevention programs – usually

integrated into an existing system such as education – universal programs can impact on populations without needing to differentiate between those at high, medium or low risk. However, a focus on universal programs risks neglecting those who may fall through the cracks and who will ultimately remain at risk. There is extensive evidence to suggest that the 'one-size-fits-all' approach of suicide intervention is not sufficient in truly reaching all demographics affected (Lifeline 2010). Due to the recognised social and environmental variables that contribute to suicide risk, selective programs offer an opportunity to reach groups most in need, while specialised and comprehensive care must be available for those at high risk. A developmental approach, combining universal, selective and indicated programs, and providing a full range of promotions, preventions and interventions, is therefore necessary to address youth suicide (Raphael 2000).

Evidence for Youth Suicide Prevention

The *National Youth Suicide Prevention Strategy* (*NYSPS*) ran from 1995 to 1999, with an evaluation of the strategy undertaken in 2000 (see Mitchell 2000). The *NYSPS* evaluation remains the key collective evidence source for the effectiveness of youth suicide prevention programs. While many current programs do undertake independent evaluations, the quality and consistency of these varies and the diversity of approaches significantly restricts any comparison between programs.

Empirical evidence regarding the effectiveness of particular youth suicide prevention programs remains largely absent. While many studies have been undertaken, methodological and evaluation techniques have not always been sophisticated. A review undertaken by Gould et al. (2003a) of 10 years of youth suicide prevention research found that, at best, some programs showed promise, but none were deemed unequivocally effective.

Nonetheless, youth-oriented programs not necessarily focused specifically on suicide awareness and prevention may still be effective and useful tools in both engaging and communicating with youth. It is important to give young people – especially those who may be deemed high-risk – an outlet in which to interact and connect with their peers. By addressing broader social aspects and structural issues, we can gain a better understanding of the impacting elements that contribute to youth suicide. More importantly, we can also harness the potential to more effectively reach specific individuals or communities at risk.

The evidence base limitations have, however, restricted the provision of specific youth suicide prevention measures in Australia. This has resulted in most programs relying on promoting youth social and emotional wellbeing as a means to preventing suicide.

Universal prevention measures

School-based Programs

Australian schools "play a vital role in promoting the intellectual, physical, social, emotional, moral, spiritual and aesthetic development of young Australians" (Ministerial Council on Education Employment, Training and Youth Affairs 2008). As a primary location for targeting young people, school-based programs offer an opportunity to promote suicide protective factors and reduce risk factors among youth populations. School-based programs have been dominant since the development of the *NYSPS*, and generally aim to promote mental health and wellbeing, and build resilience and coping mechanisms (ANU & Erebus International 2008). In Australia, most universal programs provide teaching resources to supplement or be integrated into the curriculum. Teacher, school counsellor and, at times, parent training are also an integral component of school-based programs. A whole-of-school approach to positive mental health is promoted, including activities to create a school environment that values the holistic needs of youth.

(See Appendix A for a more detailed look at suicide prevention in the Australian education system).

Anti-Bullying Programs

Given the emerging evidence of the harm that bullying can cause to young people (Rivers & Noret 2010, Rigby 2005), including a number of high profile suicide deaths; anti-bullying measures are recommended to increase safety and reduce psychological distress and suicide. Although bullying behaviour can occur in any environment, schools offer an opportunity to target anti-bullying messages to youth and are also a site for the identification and early intervention of bullying distress. Teachers, school management, parents and students need to be aware of the rights and responsibilities of schools to intervene in bullying, including cyber-bullying, which takes place both within and outside of school (McGrath 2009). Several international legal precedents have been set to outline these rights and responsibilities, although their use in Australia has not yet occurred (McGrath 2009).

Bullying has become increasingly prevalent through new mediums of communication, such as the Internet, social networking, and mobile phones. As bullying and its forms are varied and originate from different prejudices (e.g. homophobia, racism, gender stereotyping) and motivations (e.g. exerting control, punishment, or a form of self-promotion), measures that address bullying must be conducive to tackling the causes of the behaviour. Recognising bullying is a key concern in school populations, in 2003, all Australian state and territory education ministers signed up to the *National Safe Schools Framework*, which provides a suite of resources and guidelines for schools to implement as part of anti-bullying measures. Furthermore several broad-based anti-bullying initiatives have been implemented, such as the education resource, 'Bullying. No Way!' (http://www.bullyingnoway.com.au/) and the 'Method of Shared Concern' (Rigby & Griffiths 2009).

Research suggests that school-based anti-bullying programs are effective in reducing bullying behaviours, particularly amongst younger (pre-secondary) students (Rigby 2002, Rigby & Slee 2008). In particular, programs that feature a problem-solving approach, rather than a punitive (i.e. rules and consequences) approach to bullying, show more consistent positive results (Rigby 2002). The direct impact of anti-bullying programs on suicide rates, while initially promising, has not yet been fully determined. Preventing bullying outside of the school population is considerably harder and may require cultural and social changes, including legislation and anti-discrimination law compliance.

Bullying is not restricted to adolescents and may also perpetuate among young adults in tertiary education and workplaces. (See the section, *Tertiary Education, Apprentice, and Early Career-Based Programs*, below for more information)*.*

Physical Health Promotion

The positive effects of physical health on mental health are widely accepted (Brown et al. 2007). Furthermore, the psychological benefits of physical exercise for reducing symptoms of mental illness are recognised across the lifespan (SANE Australia 2010). Physical exercise in adolescence is also thought to increase beneficial chemicals in the brain; possibly preventing the onset of mental health problems. Involvement in collective physical activities, such as team sports, can also increase young people's communication and interpersonal skills, connectedness, belonging and enhance their self-esteem.

Youth at risk of suicide may be those least likely to be in school (Berman 2009). To reach those outside the school system, some programs have harnessed the correlations between physical and mental health to promote suicide prevention through sports clubs. Examples include 'Alive and Kicking Goals', which uses Australian football as a vehicle for creating suicide awareness and promoting help-seeking, and 'Coach the Coach' programs, which train sports coaches to be suicide prevention gatekeepers.

Online and New Media, Information and Education Programs

In order to educate young people about the existence and risk of suicidal behaviours, as well as the support systems available to them, it is first important to understand the ways in which youth are most likely to communicate and seek information. The Internet and new media are undeniably prominent features of youth culture. They represent growing sites of socialisation, education and recreation. Young people see the use of technology as a vital part of their social life, and often use it to express their identity (McGrath 2009). Online services therefore provide appropriate and accessible sites for young people to increase their mental health literacy and seek information about suicide prevention.

Reach Out is a web-based youth suicide prevention program. It provides information, discussion boards, online support and counselling for those in need. There is evidence to suggest the program has a positive impact on mental health literacy; an important precursor to help-seeking and supporting peers to seek help. Among those young people seeking information on a mental health issue from Reach Out, 70% reported learning how to get help and 68% reported a better understanding of the mental health experiences of others after using Reach Out (Metcalf & Stephens-Reicher (In press)).

The risks created by the Internet and new media are yet to be properly researched. However, the use of the Internet for cyber-bullying and to normalise and encourage suicide has been documented (McGrath 2009). The Internet and new media may also replace face-to-face communication in ways that increase social isolation and damage interpersonal relationships. Yet online communication and education can reach people who are geographically and socially isolated, those without access to face-to-face services, and those who feel more comfortable with the convenience and anonymity of the Internet. Online programs are also cost effective and provide sustainable models for service provision. Their utility can also be easily adapted to the needs of various demographic and cultural groups, and they have no geographical or jurisdictional restrictions; allowing international best practice to be quickly disseminated across the world.

Increased youth technology literacy can create knowledge and understanding gaps between young people and adults; possibly restricting adult acceptance of online mental health promotion measures. Parental and guardian understanding of the risks and opportunities that the Internet creates is important for the maximisation of its benefits and minimisation of negative impacts. To address this need, Inspire have developed Reach Out Pro and Reach Out Teachers Network; web-based services that provide advice to health care providers and education professionals on how to use the Internet to support and engage young people and promote their mental health and wellbeing through their work practices.

Tertiary Education, Apprentice, and Early Career-Based Programs

Youth suicide risk is not confined to school years and unique and additional stressors may present at the time when young adults are transitioning to tertiary education or vocational systems. The structured school environment, and the support mechanisms that this provides, may create a void when replaced with the self-motivating requirements of tertiary education and the workforce. This, coupled with the recognition that certain occupations are at high risk of suicide, necessitates targeted programs for young adults in higher education, training, and early career situations.

Most tertiary educational institutions have a form of on-site or referral-based counselling service. These are often incorporated into career guidance or student health services. Larger institutions may also have specific student crisis services, including web-based or phone help-lines.

Tertiary training and workplace cultures may also contain elements of hierarchy and bullying that can cause distress and suicide risk in affected young adults. Anti-bullying and anti-discrimination workplace policies and procedures are often present in larger organisations, although their utility requires protective and supportive environments for individuals to benefit from them.

More specific occupation-targeted suicide prevention programs have responded to the needs of young adults in certain sectors. OzHelp and Incolink, for example, have established programs that target young people in the construction industry, particularly men, who are recognised to be at high risk. They train on-site gatekeepers to recognise suicide risk as well as encouraging an environment conducive to young men asking for and receiving help for emotional and mental health problems. Other programs focus on law and medical students, and also young men in agriculture. These programs tend to be small scale and localised. However, opportunities for further dissemination require resourcing.

Socio-Economic Programs

Due to the impact of socio-economic status on suicide rates, measures that aim to increase socio-economic status or mitigate the risk factors that can result from low socio-economic status (such as homelessness, low education and health attainment and substance abuse) are necessary. Furthermore, social inclusion – in particular, access to housing, community support and employment – acts as a significant protective influence on mental wellbeing, and also promotes recovery for those with a mental illness, reducing suicide risk (Mental Health Coordinating Council 2007).

Due to the current concentration of suicide prevention within the health paradigm, socio-economic or social inclusion programs with specific suicide prevention objectives have not been established in Australia. Furthermore, the impacts of general socio-economic programs on suicide and suicide attempts have not been measured. Given the number of social and environmental factors that impact on suicide rates, there is a need to explore the structural barriers to mental health and wellbeing. Some evidence from overseas suggests that socio-economic programs have potential, but need to be further developed and evaluated (Crowley et al. 2004).

Media Education

There is strong evidence to suggest that inappropriate and irresponsible media reporting of suicide can have negative consequences for vulnerable populations (Pirkis & Blood 2010). In particular, the portrayal of specific websites or methods of suicide and the glamorisation of the individual and normalisation of their suicide can cause contagion behaviours, especially among vulnerable youth.

The Australian Government has funded the *Mindframe* National Media Initiative and SANE Media Centre. Both of these initiatives aim to reduce irresponsible reporting and ensure that public representations of suicide do not cause any harm. The effect has been an increase in responsible reporting in Australia (Pirkis et al. 2009); a result supported by the World Health Organization as an effective method of preventing suicide.

The potential benefits of positive media reporting upon increased awareness of suicide warning signs and the promotion of help-seeking has been less researched; although, the lack of suicide awareness in the public domain suggests that the media could be further utilised to promote suicide awareness and prevention.

Restricting Access to Means

Restricting access to means is one of the few prevention methods listed by the World Health Organization as strongly evidence-based (Mann et al. 2005). International evidence from the Golden Gate Bridge, Empire State Building, the Grafton Bridge in Auckland, and Oshima in Japan – to name a few – has shown that, by restricting access to known suicide hotspots, people will not substitute another method of death, or even another location for jumping (Beautrais et al. 2009). Gun control legislation, introduced in Australia in the 1990s, increased the downward trend of suicides by firearm (Chapman et al. 2006). Restricting access to paracetamol, by limiting pack sizes, has also been shown to have positive impacts, although more research is needed to determine the extent of these impacts (Buckley & Gunnel 2007, Crowley et al. 2004).

Australian youth suicides are typically a result of hanging; a readily accessible means of suicide and thus one hard to restrict. However, other means of suicide and self-harm, such as jumping hotspots and access to means of overdose, have the potential to be more easily restricted. For individuals recognised to be at high risk, service providers, family members and/or guardians can ensure that no means of suicide or self-harm is easily available in the short-term.

Selective Prevention Programs

Gatekeeper Training

Gatekeepers are individuals who are trained and resourced to recognise and respond to suicide risk in others. Parents and teachers have been recognised as the primary gatekeepers in youth suicide prevention (Kutash et al. 2006). Professional standards for teacher training are currently being drafted that provide an opportunity to incorporate mental health first aid and suicide prevention gatekeeper training into teacher education (see Appendix A for more details). However, despite teacher recognition of the importance of their roles in safeguarding student welfare, there is a general reticence to assign specific responsibilities to already burdened teachers. School counsellors may be better placed as key school gatekeepers for students at risk. However, teachers must also have an understanding of what to look out for and what to do if they are concerned about a student. Where it has occurred, positive results for teacher and school counsellor gatekeeper training have been found, with improved knowledge, attitudes and intervention skills observed in trainees, as well as their satisfaction with the training (Gould et al. 2003a).

GPs have an opportunity to address suicide risk "at the bottom of the iceberg"; recognising the early stages of emotional distress and intervening before high risk of suicide occurs (Michel 2000). An analysis of the role of GPs and other health care professionals, conducted by the Australian Institute of Family Studies (AIFS), noted that a large number of high-risk young people were not being detected by their GPs. As a result, many of these individuals were potentially missing out on timely intervention (AIFS 2000). Crowley et al. (2004) revealed the positive impact of GP training in recognition of suicide risk; although the specific utility in terms of recognition of youth suicide risk remains unknown. GP gatekeeper training has shown substantial and sustained reduction in suicide deaths following the implementation of comprehensive suicide prevention education for all GPs (Rutz 2001, Mann et al. 2005).

Suicide prevention gatekeepers can also administer suicide screening measures; questioning young people about risk factors and their current social and emotional wellbeing. Such screening can recognise those in need of further treatment and, while some false positives may be reported, the benefits of screening in terms of being able to target those in need are apparent.

The Senate Inquiry into Suicide in Australia has recommended that all frontline services staff should receive mandatory suicide prevention gatekeeper training, in recognition of the key role that these people can play in preventing suicide (Senate of Australia 2010).

Suicide Screening

Suicide risk screening programs can be utilised in school, primary health care, or other community settings to identify those youths who may require indicated support. Screening programs, such as TeenScreen from Columbia University, have been implemented in the United States and other countries; although their use in Australia is still ad hoc. The advantages of youth suicide screening programs for identifying suicide risk factors are well documented (for example, see http://www.teenscreen.org/images/stories/PDF/ExpertConsensus9.10.pdf), and such programs are recommended as a key component of the *National Suicide Prevention Strategy* in the United States. Their implementation in Australia must be supported by access to appropriate services and consistent pathways of care for those youths identified as being at-risk of suicide.

Mentoring / Peer Support

The rationale behind peer support programs is grounded in young peoples' preference to confide in and respond to their peers, as opposed to an adult. The evidence underpinning such programs is limited, due to the lack of effective evaluations and empirical research (Gould et al. 2003a). One widespread program operating throughout schools in Australia is the Peer Support Program. By training older students to deliver a social and emotional learning program to

younger students, the Peer Support Program creates a school community that fosters acceptance and positive peer relationships. Internal evaluations have found beneficial impacts on student communication, problem-solving skills, and self-confidence (Peer Support Foundation 2003). The impact of this on suicidality, self-harm or help-seeking behaviours has not been measured, but the protective influences of the program are promising. Similar to other school-based programs, the Peer Support Program is reluctant to incorporate specific suicide prevention initiatives into its program.

Western Australia's Youth Focus program operates an early intervention peer support program, using a mix of therapeutic, recreational and social activities, to assist young people identified as at-risk of suicide or self-harm to develop practical life and problem-solving skills. Supported by professional individual and family counselling, Youth Focus participants have reported improvements to their life as a whole, starting with understanding how to resolve complex personal issues, including suicidality and self-harm (Sachmann 2007).

Peer support roles are not the same as gatekeeper roles, and young people should never be put in a position of responsibility to care for or respond to the needs of a suicidal peer; rather, peer support programs are an effective means of promoting protective factors and increasing youth help-seeking behaviours.

Family Programs

As the primary site for socialisation and education and a pivotal environment for children's wellbeing, families provide an opportunity to promote suicide protective factors and reduce risk factors. Furthermore, families are often best placed to recognise distress or suicidality in young people. However, to do this, families must be aware of the signs and know how to help. Children are often adept at concealing their feelings. Coupled with regular youth ups and downs, the ability to distinguish young people at risk is often challenging. To help recognise and combat youth distress, parents highlight that they and their children need to be educated on youth issues and pressures, and also highlight the importance of a strong support network (The Alannah and Madeline Foundation 2009). Parental education and support could be incorporated as part of wider public health suicide prevention policies.

As well as restricting protective factors, dysfunctional family environments pose risks to youth mental wellbeing. Programs aimed at diminishing conflict and enhancing cohesion have shown positive impacts on family mental wellbeing, but impact on suicide rates has been harder to demonstrate (Crowley et al. 2004). Family counselling is often incorporated into therapies for young people identified as being at risk. The involvement of families in treatment and therapies can assist to continue the benefits of the program in the home environment.

Social work practices offer an opportunity to support young people living with parents who need care or who create volatile living environments, due to mental illness, substance abuse or suicidality. Children acting as carers for adults need to be properly supported to undertake this role and minimise the personal pressure put on them.

Programs for At-Risk Groups

Some groups have higher risk of suicidal behaviours. As outlined above, these include young people with mental illness, GLBTI people, Indigenous, CALD, and rural and remote communities, those involved in the juvenile justice system, and those bereaved by suicide. As discussed, the factors that contribute to suicide risk among these demographic groups are rarely personal and are rather a feature of their social environment and the impact this has on them as individuals. By virtue of their risk, these groups require targeted suicide prevention programs. These measures need to take into account the particular features of each risk and counteract them with culturally and socially appropriate preventions and interventions.

Furthermore, mainstream programs need to be adaptable and appropriate for these groups, allowing more widespread access and increasing uptake. Training for service providers and flexible systems that allow for consideration of individual needs are necessary. The social factors that contribute to suicide risk can also be mitigated by more universal measures that aim to increase acceptance, inclusion, services, and infrastructure across communities.

Indicated Programs

Crisis Support Services

Crisis support programs provide indicated services for those at severe and immediate risk of suicide or self-harm. Crisis support services and mental health intervention services are rarely age specific, and the most common site of service following a suicide attempt is in a general hospital emergency department. (The inappropriateness of diverting suicide crises to emergency departments is discussed in the SPA Position Statement, *Crisis Response and the Role of the Emergency Services and First Responders to Suicide and Suicide Attempts*). General health and emergency services staff often respond to suicide crises, yet their mental health training is minimal. The ability of staff to adapt basic training to be youth-specific is therefore restricted. Emergency department staff education on youth suicide prevention has been found to reduce depression and suicidality in adolescents who use the service (Hazell 2000). Using adult services for youth has long been questioned, especially with regards to the treatment of young people in adult psychiatric wards.

Evidence shows that young people feel empowered online, unashamed and confident, and are more likely to talk about sensitive issues in formats other than face-to-face counselling (Gould et al. 2002). The opportunities that this creates have been recognised by promising developments occurring in the use of the Internet and new media to reach young people at risk of suicide. Programs such as Reach Out and Kids Helpline web-based counselling have harnessed the potential to reach people by providing easily accessible, confidential, free and convenient services to young people in need.

A recent Reach Out online cross-sectional survey, implemented to help understand what young people want from the service and its impact on them, found the majority of respondents scored in the high (19.4%) or very high (51.8%) range of psychological distress. However, only 40% of users reported visiting the site because they were going through a tough time and looking for help; suggesting that Reach Out is reaching a subsection of young people who do not yet recognise their need for support or intervention (Durkin & Burns 2008).

Kids Helpline provides over 50,000 web and phone-based counselling services a year, with one in five young people requiring support for suicidality and self-harm (Kids Helpline 2010). Users of the service report satisfaction with the service and indicate that it helps them work through their issues. Evaluations of Kids Helpline found that young people disclose and seek help for more serious problems through email counselling than those disclosed through phone counselling; indicating that web counselling may be more accessible for suicidal young people (Urbis Keys Young 2002).

Research indicates that phone help-lines receive calls from suicidal people and that callers often experience reduced levels of hopelessness, confusion, depression and anxiety (King et al. 2003, Gould et al. 2005, Kalafat et al. 2007 and Paterson et al. 2009). Around 8% of Lifeline's calls are from youth (24 years and under). This constitutes 40,000 calls a year, with mental health the most frequently discussed issue (28%), followed by relationship challenges (8%) and sexual assault and abuse (8%) (Lifeline 2010).

Early Intervention Programs

Given the strong correlations between mental illness and suicide, early intervention services are critical for those who find themselves becoming unwell. Furthermore, a suicide attempt may be the first indication of an underlying problem, and early intervention services provide appropriate treatment to halt the progression of a mental disorder. Under DoHA's Early Intervention Services for Parents, Children and Young People, support is designated to young people at high risk of mental illness. This originates from the COAG *National Action Plan on Mental Health 2006–2011*, where states and territories committed to early intervention services for young people as one of their top priorities. State and territory-based initiatives include youth early intervention clinical settings (NSW), youth intervention outreach services (SA), and investment in Early Psychosis Prevention Intervention Centres (EPPIC) (Vic) (COAG 2006). Randomised control trials have found EPPIC to be effective in the treatment of suicidality in youth with first episode psychosis, and when combined with suicide prevention therapy showed increased results (Power et al. 2003, Cosgrave et al. 2007). The early intervention model for acute mental illness is not only substantially more conducive to long-term recovery, and thus reduced suicide risk, but it is also considerably more cost effective than standard models of treatment (Access Economics 2008).

Increased investment in early intervention services has gained recent political momentum, but the translation of this into services will take time and sustained attention. SPA recognises early intervention services as a key youth suicide prevention measure, and will continue to advocate for their resourcing.

Mental Health Services

While not all young people who are suicidal may have a clinical disorder, mental health services (of varying forms) are often the best placed services to respond to their needs. Appropriate services that provide effective treatment and management to young people with mental distress and mental disorders should be prioritised to respond to suicide risk (Beautrais 2000). The provision of services and their coordination must be prioritised to ensure that young people moving through the mental health system do not experience disjointed pathways of care.

Young people are typically avoidant of health services and mental health services in particular. Shame, stigma, and fear hinder youth help-seeking, while reliance on parents for transport, lack of awareness of services, and fear of cost of services also provide barriers to young people accessing mental health services. Therefore, youth services must be more attractive and accessible to young people.

A heralded model for youth mental health service provision is headspace. A specialist service, providing youth-friendly medical, mental, and allied health care, headspace aims to avoid the negative connotations and stigma that are typical to perceptions of mental health treatment generally, and aims to attract young people looking for help. The headspace model brings multiple treatments under one roof, and provides more sustainable and effective treatment than traditional GP services and referrals.

Youth services, such as those run out of Orygen Youth Health, provide an additional best practice model for youth mental health services, and require sustainable resources to provide universal coverage. Based in North West Metropolitan Melbourne, Victoria, Orygen Youth Health serves approximately 900 young people at any one time from the surrounding catchment area. Despite equal need, many other suburbs, cities, and (especially) regional areas, are left without any similar services.

For youth without access to specialised mental health services, GPs and other health care staff are often their first point of contact when seeking help. Also, for youth attending primary care for physical illness, GPs and other health care staff are in a position to act as suicide gatekeepers and can action referrals to specialised and allied health services for those at risk of suicide (Crowley et al. 2004). Despite this, estimates suggest that fewer than 50% of young people get a referral following a suicide attempt, and up to 75% may not attend follow up appointments (Breaking the Silence 2010). This suggests that GPs should be highly trained in suicide prevention.

Youth psychological services are available under Medicare rebates. However, many psychological services have waiting lists, and many are not appropriate for youth needs. Limited funding allowances also result in many young people who need services not accessing them.

Inpatient hospital care, while sometimes necessary, can be very distressing for young people. There is no empirical evidence of the effectiveness of inpatient hospital care on long-term suicidality (Gould et al. 2003a). Alternative inpatient and outpatient services need to be considered. Research by Greenfield et al. (2002) found that rapid-response outpatient treatment could reduce the need for adolescent hospitalisation for suicidality, while providing similar benefits to inpatient care. Similarly, Rudd et al. (1996) found that intensive problem-solving group therapy was as effective as inpatient care, but additionally provided lower attrition rates for high-risk patients.

Cognitive behavioural therapy (CBT) in an outpatient setting is one of the most recognised effective treatment interventions;

contributing to marked reductions in depression, suicidality, and self-harming behaviours in patients (Slee et al. 2008). More recently, Robinson et al. (In press) undertook a meta-analysis of all randomised control trials conducted into youth suicide prevention in a clinical setting. Their findings indicate that the research in this area is sparse, but that CBT demonstrated the best results for preventing youth suicidality, while attachment-based family therapy was worthy of future investigation. Further research by the National Institute of Mental Health in the United States found that intensive treatment, including CBT and medication, might be beneficial to young people who have attempted suicide (Vitiello et al. 2009).

The use of pharmaceuticals to treat depression and suicidality in young people is mired by controversy. Research in the United States has previously raised concerns about increased suicidality in youth-prescribed selective serotonin reuptake inhibitors (SSRIs) (Hammad et al. 2006). As a result, warnings were put on all packaging of SSRIs, and prescriptions dropped. Currently, in Australia, no SSRIs are approved by the Therapeutic Goods Administration for use in treating depression in people under 18 years of age.

Despite these controversies, SSRIs have shown to be an effective treatment for youth depression and suicidality (Gould et al. 2003a). Furthermore, the decreased use of SSRIs in Australia has recently been linked to increased youth suicides. Fluoxetine has been shown to be the most effective SSRI (Hetrick et al. 2007). The earlier link found between SSRI intake and suicidality is likely to be real, yet it is a short-term side effect, and can be counteracted by consistent monitoring and complementary therapies, such as CBT (Orygen 2009). Balanced against the risk of not treating youth depression, SSRIs offer some potential to reduce youth suicide.

The period following discharge from a mental health inpatient unit or conclusion of outpatient treatment is a period of elevated risk for suicidality (Crowley et al. 2004). Follow-up care is therefore a recognised suicide prevention measure that is relatively cost effective to administer (Hazell 2000). Postal contact has been found to be an effective means to maintain follow-up care (Motto & Bostrom 2001), while the use of text messages, phone calls, and face-to-face contact show promise as various means by which to assist a young person to conveniently remain engaged with a service; increasing the likelihood of future help–seeking, if necessary.

Recommendations

Suicide Prevention Australia makes the following recommendations to prevent suicide and suicidal behaviour in young people:

- The Australian Government should greatly increase funding for suicide prevention services, research, infrastructure, and monitoring.

- Greater efforts are needed to remove the structural barriers to youth wellbeing, including socio-economic disadvantage, social isolation, and restricted service access. This requires cross-government collaboration and support.

- Greater government and community efforts are required to tackle issues that may lead to suicide risk in young people. These include child neglect, abuse, and family separation. Commitments must be made to address bullying, drug and alcohol abuse, and juvenile justice issues.

- Increase the focus on early intervention services to protect youth mental health. Move away from a mental health system focused on emergency and episodic care to one that recognises the holistic needs of consumers.

- The Australian Government should greatly increase funding for those programs that can reach young people who are in distress, but are not seeking professional face-to-face help. Online communication programs, help-lines, and greater use of new technologies should be developed to enhance accessibility and provide seamless referrals.

- Improved governance and accountability structures should ensure that there are no gaps or duplications in service provision or access. The coordination of consistent and effective pathways of care should be a top priority.

- Young people should be supported and encouraged to be involved in the design, implementation and evaluation of services that are targeted to their demographic. The appropriateness and sustainability of services will be enhanced as a result.

- National awareness-raising and stigma reduction campaigns targeting youth suicide should be adequately funded. These should incorporate community education and social marketing aspects, as well as both universal and targeted campaigns.

- Provision of comprehensive 'gatekeeper' training for all frontline workers, such as school counsellors, teachers, youth workers, GPs, and nurses. Training should be available for parents and other community members, at minimum cost.

- Comprehensive evaluations of all youth suicide prevention programs.

- Inclusion of mandatory curriculum content relating to mental health and wellbeing and the development of resiliency skills in schools, including within the Health and Physical Exercise curriculum.

- Inclusion of mandatory mental health training requirements in the *National Professional Standards of Teaching*, as developed by the Australian Institute of Teaching and School Leadership.

APPENDIX A

School-Based Suicide Prevention Programs

As the vast majority of young people attend school until they are at least 16 years old, schools offer a prime opportunity to locate suicide prevention, intervention, and postvention measures. Australian education is underpinned by several separate welfare policies, including the *National Framework for Health Promoting Schools*, the *National Framework for Values Education*, the *National Safe School Framework*, *Principles for School Drug Education*, the *National Drug Strategy*, the *National Action Plan on Mental Health*, and the *National Suicide Prevention Strategy* (*NSPS*). Among these myriad initiatives, practical progress is hampered by the volume of programs available and the difficulties in prioritising initiatives.

Prevention programs are often best based in the curriculum, but targeted measures are also needed to respond to those at greatest risk (Raphael 2000). In addition to their utility for the large proportion of students, universal programs create an environment conducive to implementing selective and indicated programs. Australian school principals estimate that up to 20% of their students need targeted services (Intercamhs 2009).

Universal

School-based suicide prevention programs based on mental health promotion are the most popular approaches in Australia. School-based mental health programs that teach skills such as problem-solving, resilience and coping have shown some positive results, although the evidence has demonstrated some ambiguities (Gould et al. 2003a, Crowley et al. 2004).

A new national curriculum is currently in development, creating – for the first time – nationwide consistency in educational content. The new curriculum aims to instil self-worth, positive mental wellbeing and resilience in young learners. The Health and Physical Exercise (HPE) curriculum (the most natural site to promote suicide and mental illness protective factors) will be nationalised during Stage 3 of curriculum development, and offers an opportunity to incorporate mental health and wellbeing education into every school curriculum. This could create mandated classroom time, directed towards promoting suicide protective factors, reducing risk factors, and encouraging help-seeking in young people. The HPE curriculum also offers an opportunity through which to increase awareness and reduce the stigma of mental illness. Given HPE is not a mandatory subject for all students, a whole-of-school approach to promoting youth mental health must also be instigated.

A three-year randomised control trial of a school-based depression initiative by *beyondblue* incorporated many of the best practice components of universal school programs, including teacher training, curriculum input, enhancements to school climates, improved care pathways, and community forums (Sawyer et al. 2010b). The trial failed to find any impact on students' depressive symptoms at the end of the period; demonstrating the difficulty of proving the impact of such interventions, but also the need for more analysis of the effectiveness of universal school-based initiatives. More research is needed, especially with regards to evaluations of current universal school programs aimed at changing behaviour and reducing depressive symptoms among students.

In addition to promoting positive mental health, educating adolescents on suicide warning signs and effective help-seeking is posited as an approach to preventing youth suicide. The value and safety of targeting specific suicide prevention programs to youth, which include measures to increase awareness of suicide risk and how to seek help for suicidality, has been questioned (Mazza 1997). Fears that irresponsible programs may create imitative behaviours and inappropriate content may restrict help-seeking underpin much of the caution for school-based suicide awareness programs (Gould 2003b). Yet, it has been suggested that this stance is out of date, and recent arguments propose that it may, in fact, hinder suicide prevention efforts (Bridge et al. 2007, Kalafat 2003, Gould et al. 2005, Joiner 2009, Miller & Eckert 2009).

MindMatters

MindMatters is funded by the *NSPS*. It was developed in recognition of the key role that secondary schools play in youth mental health and wellbeing. It provides a framework that supplements mental health promotion initiatives already in place in schools, and is primarily a universal program; although, it does contain some selective aspects. One of the fundamental components of MindMatters is its teacher professional development, which alongside resources for curriculum input, comprises the most utilised aspect of the program. Through teacher training and the provision of resources, MindMatters promotes a whole-of-school approach to create the optimum environment for the promotion of youth mental health and wellbeing. Activities adopted by schools under MindMatters' whole-of-school strategy have included youth forums, mental health days, team building, anti-bullying programs, enhancing referral protocols, and peer support programs (Wyn et al. 2000).

A national survey indicated that MindMatters is used, in some way, in two-thirds of schools and is the primary mental health and wellbeing promotional program in one-fifth of schools in Australia (Ainley et al. 2006). Increased uptake of MindMatters is projected to occur in the enhanced utilisation of the program by currently engaged schools. Evaluation data found small, but statistically significant, improvements in student attitudes following teacher training (Hazel 2005). Furthermore, evaluation of one of the curriculum resources developed by MindMatters – *Understanding Mental Illness* – found that, although it was not widely utilised by teachers, those who had used it found it had positive impacts on students' knowledge, attitudes, and behavioural intentions (Askell-Williams et al. 2006). Teachers' knowledge of the subject matter was reported as one of the key barriers to effective implementation of the program component; indicating the importance of comprehensive teacher professional development, prior to utilisation. The shortage of teacher time, resources, and staff turnover have been identified as barriers to effective implementation of MindMatters, while active school support for student wellbeing remains a key factor in its success to date (Hazel 2005).

MindMatters provides an optional guide for schools, called *Educating for Life*, which provides advice on school-based responses to suicide and self-harm prevention. It states:

> An effective suicide prevention program seeks to promote resilience, and where possible to enhance factors such as connectedness to school and positive self-esteem. A school-based suicide prevention program delivers activities and programs that work to create a safe and supportive environment, as well as to assist and support the individual young person in distress (MindMatters 2000: 10).

The guide also provides advice on the importance of critical incident management plans. The utilisation of this resource has not been universal, due to some education sector attitudes towards the appropriateness of suicide prevention programs in schools. The impact of MindMatters on student suicide ideation or behaviour has not been measured.

KidsMatter

KidsMatter complements MindMatters by providing an early intervention and health promotion model for primary schools. KidsMatter was implemented in 101 primary schools in 2007–2008, with further expansion expected throughout 2010. It utilises four components to strengthen children's mental health and wellbeing; spanning universal, selected, and indicated approaches. These components include: a positive school community, social and emotional learning, parental support and education, and early intervention for students experiencing mental health difficulties. Evaluations of the pilot stage of KidsMatter have shown multiple benefits, including school cultural changes in relation to mental health difficulties and the promotion of protective factors. There were also measured improvements in the mental health of children with recognised mental health difficulties (Slee et al. 2009).

Resourceful Adolescent Program

The Resourceful Adolescent Program (RAP) was established to prevent teenage depression and related mental health problems. It is a universal program, designed to be appropriate for all teenagers, regardless of their mental health status. The RAP operates on individual, family, and school levels, although its school-based component is the most popular. Incorporating teacher training and curriculum input, the RAP's school program has been running for over 13 years and has trained over 5,000 school personnel. It is primarily based on CBT principles, and is designated as evidence-based by the Australian Government. Preliminary results of a three-year randomised control trial, funded by the NHMRC, have shown the short- and long-term benefits of the program in terms of reducing adolescent depressive symptoms.

Selective

The responsibility to identify youth in need of selective and indicated programs often falls to teachers (Crawford & Caltabiano 2009). While student welfare is an important aspect of teachers' roles, the resources, training, and time necessary for them to undertake a gatekeeper function is often lost in a busy curriculum and myriad competing priorities. Previously, Australian school teachers' knowledge of youth suicide risk factors was found to be relatively low, restricting their ability to undertake their gatekeeping role (Scouller & Smith 2002). In a more recent survey, Australian school principals reported that their teachers needed to be better trained to respond to the needs of students with serious problems; in particular, to enable early intervention (Intercamhs 2009). Australian research by Crawford & Caltabino (2009) found that the majority of teachers in their random sample had not received youth suicide prevention training, yet nearly half had a student attempt or die by suicide. The lack of training was recognised as a key risk for young people, and informed the authors' recommendation that teacher training include detailed, regular suicide prevention training (Crawford & Caltabino 2009).

The Australian Institute of Teaching and School Leadership has been given the mandate by the Ministerial Council for Education, Early Childhood Development and Youth Affairs (MCEECDYA) to develop national professional standards for teachers. The standards are currently being drafted and will provide a continuum of capabilities and expectations for teachers. In this regard, they provide an opportunity to integrate the protection and promotion of the social and emotional wellbeing of students into teacher training, and should provide for mandatory mental health training and ongoing support for all teachers.

Kalafat (2003) acknowledges the benefits of selective protective factor skill-based programs, yet warns that, in isolation, these are not sufficient to mitigate all suicide risk factors. A comprehensive review of the evidence of school programs in the United States found that practical skills training, alongside selected CBT and behaviour management strategies, held the strongest evidence base for youth mental health and the reduction of suicide risk factors. The review also found that social skills training, while popular, held no empirical evidence to show positive impacts on social functioning (Kutash et al. 2006). Furthermore, Kalafat (2003) cites a study [Luther 1991] whose evidence showed that, despite young people appearing resilient in the face of adversity, they are in fact better at hiding their syndromes (such as depression and anxiety) and, thus, are less likely to receive the help they need. Resilience and coping skills training may, therefore, not be sufficient in isolation.

More popular in the United States than in Australia, suicide screening programs in schools question youth to determine if they are displaying risk, and refer those students recognised as being at-risk to appropriate programs or professionals. To assist with these care pathways, school student welfare policies, suicide prevention or mental health crisis policies may be implemented and disseminated to all staff and stakeholders. However, these are not compulsory for schools. Crawford & Caltabiano (2009) found that only 16.9% of teachers in their survey were aware that their school had a suicide prevention policy. A school policy increases the number and sustainability of prevention and intervention programs implemented in schools by providing procedures and guidelines for staff, while also formally positioning suicide prevention as a priority within the school's responsibilities (King 2001).

As an example of a suicide-specific school initiative, the *Signs of Suicide* (*SOS*) program incorporates suicide awareness curricula alongside depression and suicidality screening for high school students in the United States. Studies of the *SOS* program found a 40% reduction in self-reported suicide attempts in the three months following implementation (Aseltine & DeMartino, 2004), and increased referrals for suicidality and depression (Aseltine 2002). Imperative to the implementation of didactic suicide prevention measures are the availability of support for students and the training of gatekeepers to identify students in distress following program contact.

A key component of youth help-seeking behaviour is comfort in talking about suicidality. Direct questioning and open and responsible communication may be crucial to encouraging disclosure (Miller & Eckert 2009, Joiner 2010). Kalafat (2003) recommends that, alongside gatekeeper and parent training, school children should be taught the signs of risk in peers and the benefits of help-seeking for a range of issues, including interpersonal violence and suicide. This approach, alongside a positive school ethos that encourages collaboration among adult stakeholders and activities aimed at increasing youth school connectedness, has shown positive results in suicide rates over an 18-year period in a Miami (US) school district (Zenere & Lazarus 2009). However, education systems in Australia are still reticent to incorporate suicide prevention specific measures into national school ethos and curriculums.

Indicated

A review of school-based depression programs by Calear & Christensen (2010) found that indicated school programs are associated with the most positive results in reducing adolescent depression, but universal and selected programs also show some promise. The disparity between program effectiveness is hypothesised as being due to the quality of universal and selected programs implemented, rather than the potential of these approaches to reduce youth depression. CBT is the most common intervention utilised, and supports previous research showing its effectiveness. The use of mental health professionals to implement programs was also shown to be more effective than teacher delivery. However, the resource implications of using mental health professionals denotes the need to further support and develop teacher capacity to deliver programs (Calear & Christensen 2010).

The effectiveness of school-based programs on student outcomes shows a general trend towards improved awareness and knowledge of mental health issues (Aseltine & DeMartino 2004, Eggert et al. 1995, Thompson et al. 2000). However, the effect of this awareness on behaviour has not been measured. Furthermore, research is unequivocal regarding whether these programs significantly reduce the incidence or prevalence of mental health conditions known to increase the risk of suicide (e.g. depression) or reduce actual suicide rates (Aseltine et al. 2007, Mazza 1997).

Given the number and variation of school-based youth suicide prevention programs in Australia and the relative inconclusivity of their evidence base, a more comprehensive and consistent approach, utilising current models and programs, may be recommended.

References

Access Economics (2008) *Cost Effectiveness of Early Intervention for Psychosis* Report by Access Economics Pty Ltd for Orygen Research Centre.

Ainley, J., Withers, G., Underwood, C., & Frigo, T. (2006) *MindMatters National Survey of Health and Well-being Promotion Policies and Practices in Secondary Schools.* Australian Council for Educational Research.

Alannah and Madeline Foundation (2009) *Children 365 Research* Sweeny Research.

Aseltine, R. Jr., James, A., Schilling, E. & Glanovsky, J. (2007) 'Evaluating the SOS Suicide Prevention Program: a Replication and Extension'. *British Medical Journal, Public Health, 7*, 161.

Aseltine, R. Jr. & DeMartino, R. (2004) 'An Outcome Evaluation of the SOS Suicide Prevention Program'. *American Journal of Public Health*, *94,* 3, 446-451.

Aseltine, R. Jr. (2002) 'An Evaluation of a School Based Suicide Prevention Program'. *Adolescent & Family Health, 3*, 2, 81-88.

Askell-Williams, H., Lawson, M., Murray-Harvey, R. & Slee, P. (2006) *The Investigation into the Teaching of a MindMatters Module in Secondary School Classrooms May 2006*. School of Education Flinders University Adelaide, Australia.

Australian Bureau of Statistics (2008) *National Survey of Mental Health and Wellbeing 2007.* Commonwealth of Australia.

Australian Bureau of Statistics (2010) *Cause of Death.* Commonwealth of Australia.

Australian Bureau of Statistics and Australian Institute of Health and Welfare, authored by Pink, B. & Allbon, P. (2008) *The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples.* Commonwealth of Australia.

Australian Institute of Health and Welfare (2007) *Young Australians: Their Health and Wellbeing.* Commonwealth of Australia.

Australian Institute of Health and Welfare (2009). *Hospital Separations Data, 2007-8.* Commonwealth of Australia.

Australian Institute of Health and Welfare (2010) *A Snapshot of Men's Health in Regional and Remote Australia.* Commonwealth of Australia.

Australian Institute of Family Studies (2000) *Crisis Intervention and Primary Care Volume 3. Evaluation of the National Youth Suicide Prevention Strategy*. Melbourne, Australia.

Australian National University and Erebus International (2008) 'Scoping Study into Approaches to Student Wellbeing'. Literature Review Report to the Department of Education, Employment and Workplace Relations.

Bagley, C. & Tremblay, P. (2000) 'Elevated Rates of Suicidal Behaviour in Gay, Lesbian, and Bisexual Youth'**.** *Crisis, 21,* 3, 111 – 117.

Barksdale, C., Walrath, C., Compton, J. & Goldston, D. (2008). 'Assessing the Effects of Peer Suicide on Youth Suicide'. *Suicide & Life-Threatening Behavior, 39*, 2, 152-160.

Begg, S., Vos, T., Barker, B., Stevenson, C., Stanley, L. & Lopez A. (2007). *The Burden of Disease and Injury in Australia 2003*. Canberra: AIHW.

Beautrais, A. (2000) 'Risk Factors for Suicide and Attempted Suicide Among Young People' *Australian and New Zealand Journal of Psychiatry, 34,* 420-436.

Beautrais, A. (2003) 'Subsequent Mortality in Medically Serious Suicide Attempts: a 5 year Follow Up'. *Australian and New Zealand Journal of Psychiatry, 37,* 5, 595-599.

Beautrais, A., Gibb, S., Fergusson, D., Horwood, L. & Larkin, G. (2009) 'Removing Bridge Barriers Stimulates Suicides: an Unfortunate Natural Experiment'. *Australian New Zealand Journal of Psychiatry, 43*, 6, 495-497.

Berman, A. (2009) 'School Based Suicide Prevention: Research Advances and Practice Implications'. *School Psychology Review, 38*, 2, 233-238.

Booth, H. (2010) 'The Evolution of Epidemic Suicide on Guam: Context and Contagion'. *Suicide & Life - Threatening Behavior*, *40*, 1, 1-13.

Brausch, A. & Gutierrez, P. (2010) 'Differences in Non-Suicidal Self-Injury and Suicide Attempts in Adolescents.' *Journal of Youth Adolescence, 39,* 233-242.

Breaking the Silence (2010) *Suicide and Suicide Prevention in Australia* Produced by Lifeline Australia, Inspire Foundation, OzHelp Foundation, Centre for Mental Health Research, Suicide Prevention Australia, The Salvation Army, The Brain and Mind Research Institute.

Bridge, S. Hanssens, L and Santhanam, R (2007) 'Dealing with Suicidal Thoughts in Schools: Information and Education Directed at Secondary Schools'. *Australasian Psychiatry, 15*, 1, 58-62.

Brown, D., Galuska, D., Zhang, J., Eaton, D., Fulton, J. & Lowry, R. (2007) 'Psychobiology and Behavioral Strategies. Physical Activity, Sport Participation, and Suicidal Behavior: U.S. High School Students'. *Medical Science Sports Exercise Journal*, *39*, 12, 2248-2257.

Bruffaerts, R., Demyttenaere, K., Borges, G., Haro, J., Chiu, W., Hwang, I., Karam, E., Kessler, R., Sampson, N., Alonso, J., Andrade, L., Angermeyer, M., Benjet, C., Bromet, E., de Girolamo, G., de Graaf, R., Florescu, S., Gureje, O., Horiguchi, I., Hu, C., Kovess, V., Levinson, D., Posada-Villa, J., Sagar, R., Scott, K., Tsang, A., Vassilev, S., Williams, D. & Nock, M. (2010) 'Childhood Adversities as Risk Factors for Onset and Persistence of Suicidal Behaviour'. *The British Journal of Psychiatry, 197*, 20–27.

Buckley, N. & Gunnell, D. (2007) 'Does Restricting Pack Size of Paracetamol (Acetaminophen) Reduce Suicides?' *Public Library of Science Med*, *4*, 4, 152.

Burns, J., Andrews, G. & Szabo, M. (2002) 'Depression in Young People: What Causes it and Can We Prevent It?' *Medical Journal of Australia, 177*, 7, 93-96.

Calear, A. & Christensen, H. (2010) 'Systematic Review of School-Based Prevention and Early Intervention Programs for Depression'. *Journal of Adolescence, 33,* 429-438.

Cantor, C., Neulinger, K., Roth, J. & Spinks, D. (1998). *The Epidemiology of Suicide and Attempted Suicide Among Young Australians*. A Literature Review prepared for National Health and Medical Research Council, Canberra.

Cass, B., Smyth, C., Hill, T., Blaxland, M. & Hamilton, M (2009) 'Young Carers in Australia: Understanding the Advantages and Disadvantages of their Care Giving'. *Social Policy Research Paper No. 38*, Department of Families, Housing, Community Services and Indigenous Affairs.

Chapman, S., Alpers, P., Agho, K. & Jones, M. (2006) 'Australia's 1996 Gun Law Reforms: Faster Falls in Firearm Deaths, Firearm Suicides, and a Decade without Mass Shootings'. *Injury Prevention*, *12*, 365-372.

Cheng, S. & Chan, A. (2007) 'Multiple Pathways from Stress to Suicidality and the Protective Effect of Social Support in Hong Kong Adolescents'. *Suicide and Life-Threatening Behavior, 37*, 2, 187-197.

Cooper, J., Appleby, L. & Amos T. (2002) 'Life Events Preceding Suicide by Young People. *Social Psychiatry and Psychiatric Epidemiology*, 37, 6, 271-275

Cosgrave, E., Robinson, J., Godfrey, K., Yuen, H., Killackey, B., Buckby, J. & Yung, A. (2007) 'Outcome of Suicidal Ideation and Behavior in a Young, Help-Seeking Population Over a 2-Year Period'. *Crisis 28,* 1, 4-10.

Council of Australian Governments (2006) *National Action Plan on Mental Health 2006–2011* COAG.

Crawford, S. & Caltabiano, N. (2009) 'The School Professionals' Role in Identification of Youth at Risk of Suicide.' *Australian Journal of Teacher Education 34,* 2, 28-39.

Crowley, P., Kilroa, J. & Burke, S. (2004) *Youth Suicide Prevention*. Health Development Agency on behalf of the UK and Ireland Public Health Evidence Group**.**

De Leo, D. & Heller, T. (2004) 'Who Are the Kids Who Self-Harm? An Australian Self-Report School Survey'. *Medical Journal of Australia, 181*, 3, 140-144.

Durkin, L. & Burns, J. (2008) *2007 Reach Out! User Profiling Research Report.* Inspire Foundation.

Eggert, L., Thompson, E., Herting, J. & Nicholas, L. (1995) 'Reducing Suicide Potential Among High-Risk Youth: Tests of a School-Based Prevention Program.' *Suicide Life-Threatening Behavior, 25*, 2, 276-296.

Eldridge, D. (2008) *Injury Among Young Australians* AIHW Bulletin 60, Commonwealth of Australia.

Gould, M., Greenberg, T., Velting, D. & Shaffer, D. (2003a) 'Youth Suicide Risk and Prevention Interventions: A Review of the Last 10 Years'. *Journal of the American Academy of Child Adolescent Psychiatry 42*, 4, 386 - 405

Gould, M., Jamieson, P. & Romer, D. (2003b) 'Media Contagion and Suicide Among the Young'. *The American Behavioral Scientist* 46, 9, 1269

Gould, M., Munfakh, J., Lubell, K., (2002). 'Seeking Help From The Internet During Adolescence'. *Journal of American Academy of Child Adolescent Psychiatry*, *41*, 10, 1182-1189.

Gould, M., Marrocco, F., Kleinman, M., Thomas, J., Mostoff, K., Cote, J. & Davies, M. (2005*) '*Evaluating Iatrongenic Risk of Youth Suicide Screening Programs'. *Journal of the American Medical Association 293*, 13, 1635-1643.
Greenfield. B., **Larson, C., Hechtman, L., Rousseau, C. & Platt, R**. **(2002)** 'A Rapid-Response Outpatient Model for Reducing Hospitalization Rates Among Suicidal Adolescents'. *Psychiatry Services 53*, 12, 1574-1579.

Hammad, T., Laugren, T., & Racoosin, J. (2006) 'Suicidality in Pediatric Patients Treated with Antidepressant Drugs'. *Archives of General Psychiatry 63*, 332-339**.**

Hawton, K., Harriss, L., & Zahl, D. (2006). Deaths from All Causes in a Long-Term Follow-Up Study of 11,583 Deliberate Self-Harm Patients'. *Psychological Medicine, 36,* 3, 397-405.

Hawton, K., & James, A. (2005). 'Suicide and Deliberate Self Harm in Young People'. *British Medical Journal, 330*, 7496, 891-894.

Hazel, T. (2005) *MindMatters. Evaluation of the Professional Development Program and School level Implementation.* Hunter Institute of Mental Health.

Hazell, P. (2000) 'Treatment Strategies for Adolescent Suicide Attempters.' In Hawton, K and Van Heeringen, K (eds) (2000) *The International Handbook of Suicide and Attempted Suicide*. Wiley and Sons, Chichester.

Hetrick, S. E., Merry, S., McKenzie, J., Sindahl, P., & Proctor, M. (2007) 'Selective Serotonin Reuptake Inhibitors (SSRIs) for Depressive Disorders in Children and Adolescents'. *Cochrane Database of Systematic Reviews*. The Cochrane Library, Issue 3.

Hickie, I., Fogarty, A., Davenport, T., Luscombe, G. & Burns, J. (2007) 'Responding to Experiences of Young People with Common Mental Health Problems Attending Australian General Practice'. *Medical Journal of Australia, 187*, 7, 47-52.

Hunter, E., & Milroy, H. (2006) 'Aboriginal and Torres Strait Islander Suicide in Context'. *Archives of Suicide Research, 10*, 2, 141-157.
International Association of Child and Adolescent Mental Health and Schools (Intercamhs) (2009) *International Survey of Principals Concerning Emotional and Mental Health and Well-Being. Country Report Australia 2009.* Intercamhs.

Joiner, T. (2009) 'Suicide Prevention in Schools as Viewed Through the Interpersonal – Psychological theory of Suicidal Behaviour'. *School Psychology Review, 38*, 2, 244-248.
Joiner, T. (2010) *Myths About Suicide.* Harvard University Press.

Kalafat, J. (2003) 'School Approaches to Youth Suicide Prevention'. *The American Behavioral Scientist, 46*, 9, 1211.

Kalafat, J., Gould, M., Harriss Munfakh, J. & Kleinman, M. (2007) 'An Evaluation of Crisis Hotline Outcomes Part 1: Non Suicidal Callers.' *Suicide and Life-Threatening Behavior*, *37,* 3, 322-337.

Kamieniecki, G. (2001) 'Prevalence of Psychological Distress and Psychiatric Disorders among Homeless Youth in Australia: a Comparative Review'**.** *Australia and New Zealand Journal of Psychiatry*, *35,* 3, 352-358.

Kelly, C., Jorm, A. & Wright, A. (2007) 'Improving Mental Health Literacy as a Strategy to Facilitate Early Intervention for Mental Disorders'. *Medical Journal of Australia, 187*, 7, 26-30.

Kidd, S. (2004) 'Factors Precipitating Suicidality Among Homeless Youth. A Quantitative Follow Up'. *Youth Society, 37,* 4, 393-422.

Kids Helpline (2010) *Kids Helpline Overview of 2009.* Boystown.

King, K. (2001) 'Developing a Comprehensive School Suicide Prevention Program'. *The Journal of School Health, 71,* 4, 132-137.

King, R., Nurcombe, B., Bickman, L., Hides, L. & Reid, W. (2003) 'Telephone Counselling for Adolescent Suicide Prevention: Changes in Suicidality and Mental State from the Beginning to End of a Counselling Session.' *Suicide and Life-Threatening Behavior*, *33*, 4, 400-411.

Kõlves, K. (2010) 'Child Suicide, Family Environment, and Economic Crisis.' *Crisis, 31*, 3, 115-117.

Kutash, K., Duchnowski, A. J. & Lynn, N. (2006) *School-Based Mental Health: An Empirical Guide for Decision-Makers.* Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Department of Child & Family Studies, Research and Training Center for Children's Mental Health.

Lamis, D., Malone, P., Langhinrichsen-Rohling, J., Ellis, T. (2010) 'Body Investment, Depression, and Alcohol Use as Risk Factors for Suicide Proneness in College Students.' *Crisis, 31*, 3, 118-127.

Larkin, G. & Beautrais, A. (2010) 'Emergency Departments are Underutilized Sites for Suicide Prevention.' *Crisis, 31*, 1, 1-6.

Liu, R. (2006) 'Vulnerability to Friends' Suicide Influence: The Moderating Effects of Gender and Adolescent Depression' *Journal of Youth and Adolescence, 35,* 3, 479-489.

Mann, J., Apter, A., Bertolote, J., Beautrais, A., Currier, D., Haas, A., Hegerl, U., Lonnqvist, J., Malone, K., Marusic, A., Mehlum, L., Patton, G., Phillips, M., Rutz, W., Rihmer, Z., Schmidtke, A., Shaffer, D., Silverman, M., Takahashi, Y., Varnik, A., Wasserman, D., Yip, P. & Hendin, H. (2005) 'Suicide Prevention Strategies, A Systematic Review'. *Journal of the American Medical Association, 294,* 13, 2064 – 2074.

Lifeline (2010) *Youth Suicide In Australia: Submission to the Inquiry into Suicide In Australia, Senate Community Affairs Reference Committee.* Lifeline Australia.

Mazza, J. (1997) 'School-Based Suicide Prevention Programs: Are they effective?' *School Psychology Review, 26*, 3, 15.

McGrath, H. (2009) *Young People and Technology, A Review of the Current Literature (2nd edition)* Prepared for the Alannah and Madeline Foundation.

Mental Health Coordinating Council (2007) *Social Inclusion, Its Importance to Mental Health* Mental Health Coordinating Council.

Metcalf, A, Stephens-Reicher, J. (In press) *ReachOut.com User Profiling Insights 2010*, report for Inspire Foundation, Sydney. (In press).

Michel, K (2000) 'Suicide Prevention and Primary Care' in Hawton, K and Van Heeringen, K (eds) (2000) *The International Handbook of Suicide and Attempted Suicide* Wiley and Sons: Chichester.

Miller, D. & Eckert, T. (2009) 'Youth Suicidal Behaviour: An Introduction and Overview'. *School Psychology Review, 38*, 2.

MindMatters (2000) *Educating for Life* MindMatters Resource Kit.

Ministerial Council on Education Employment, Training and Youth Affairs (2008*) Melbourne Declaration on Educational Goals for Young Australians.* MCEETYA Dec 2008.

Mission Australia (2009) *National Survey of Young Australians, Key and Emerging Issues.* Mission Australia.

Mitchell, P. (2000) *Valuing Young Lives: Evaluation of the National Youth Suicide Prevention Strategy.* Australian Institute of Family Studies, Commonwealth of Australia.

Motto, J. & Bostrom, A. (2001) 'A Randomized Controlled Trial of Postcrisis Suicide Prevention' *Psychiatric Services*, *52*, 828-833.

National Health and Medical Research Council (1999) *Setting the Evidence Based Research Agenda for Australia, National Youth Suicide Prevention Strategy*. Department of Health and Ageing.

Najem, R. & Salem, A. (2006) 'Youth Suicide: Environmental Risk Factors'**.** *Journal of Epidemiology, 17*, 6, 409.
Orygen Youth Mental Health Research Centre (2009) *Using SSRI Antidepressants to Treat Depression in Young People: What are the Issues and What is the Evidence?* headspace.

Paterson, H., Reniers, R., & Völlm, B. (2009) 'Personality Types and Mental Health Experiences of those who Volunteer for Helplines.' *British Journal of Guidance and Counselling*, *37*, 4, 459-471.

Peer Support Program (2003) *Peers Helping Peers – Research into the Effectiveness of the Peer Support Program.* Self Research Centre, University of Western Sydney.

Pirkis, J., Dare, A., Blood, R. W., Rankin, B., Williamson, M., Burgess, P., et al. (2009) 'Changes in Media Reporting of Suicide in Australia Between 2000/01 and 2006/07'. *Crisis, 30*, 1, 25-33.

Pirkis, J. & Blood, W. (2010) *Suicide and the News and Information Media: A Critical Review.* Hunter Institute of Mental Health [Available at http://www.mindframe-media.info/client_images/908140.pdf].

Pompili, M., Mancinelli, I., Girardi, P., Ruberto, A and Tatarelli, R. (2005) 'Childhood Suicide: A Major Issue in Pediatric Health Care'*. Issues in Comprehensive Pediatric Nursing, 28*, 1, 63-68.

Power, P., Bell, R., Mills, R., **Herrman-Doig, T**., **Davern, M**., **Henry, L**., **Yuen, H**., **Khademy-Deljo, A**. **& McGorry, P. (2003)** 'Suicide Prevention in First Episode Psychosis: the Development of a Randomised Controlled Trial of Cognitive Therapy for Acutely Suicidal Patients with Early Psychosis'. *Australia and New Zealand Journal of Psychiatry 37*, 4, 414-420.

Pridmore, S. & Fujiyama, H. (2009) 'Suicide in the Northern Territory, 2001-2006'. *Australian and New Zealand Journal of Psychiatry, 43*, 12, 1126-1130.

Queensland Commission for Children, Young People and Child Guardian (QCCYPCG) (2009) *Reducing Youth Suicide in Queensland, Discussion Paper.* QCCYPCG, State of Queensland.

Raphael, B. (2000) *Promoting the Mental Health and Wellbeing of Children and Young People. Discussion Paper: Key Principles and Directions*. Canberra: National Mental Health Working Group, Department of Health and Aged Care.

ResponseAbility (no date) *Suicide, Risk Factors and Warning Signs Fact Sheet*. Commonwealth of Australia.

Rigby, K. (2002). *A Meta-Evaluation of Methods and Approaches to Reducing Bullying in Pre-Schools and in Early Primary School in Australia*. Retrieved from http://www.ncp.gov.au/ncp/publicationentry.asp?PUBID=47&XMENU=3.

Rigby, K. (2005) 'Bullying in Schools and the National Safety School Framework'. [online] *Teacher: The National Education Magazine*, July 2005, 20-22.

Rigby, K. & Griffiths, C. (2009) 'Applying the Method of Shared Concern in Australian Schools: an Evaluative Study.' Prepared for *The Department of Education, Employment and Workplace Relations.* [Available online at: http://www. deewr.gov.au/Schooling/NationalSafeSchools/Documents/covertBullyReports/MethodOFSharedConcern.pdf . Accessed October 2010]

Rigby, K. & Slee, P. (2008) 'Interventions to Reduce Bullying'. *International Journal of Adolescent Medicine and Health, 20*, 2, 165-183.

Rivers, I. & Noret, N. (2010) 'Bullying and Thoughts of Ending One's Life'. *Crisis, 31*, 3, 143-148.

Robinson, J., Hetrick, S. & Martin, C. (In press) 'Preventing Suicide in Young People: Systematic Review'. *Australia and New Zealand Journal of Psychiatry*.

Rudd, M., Rajab, M., Orman, T., Joiner, T., Stulman, D. & Dixon, W. (1996) 'Effectiveness of an Outpatient Intervention Targeting Suicidal Young Adults: Preliminary Results'. *Journal of Consulting and Clinical Psychology, 64*, 179-190.

Rutz, W. (2001) *'*Preventing Suicide and Premature Death by Education and Treatment'*. Journal of Affective Disorders*, *62,* 123-129.

Sachmann, M. (2007) *Peer Group Support Weekends, Evaluation Report.* Youth Focus.

SANE Australia (2010) *Research Bulletin 11: Suicide, Self Harm and Mental Illness.* SANE Australia.

Sawyer, M., Guidolin, M., Schulz, K., McGinnes, B., Zubrick, S. **& Baghurst, P. (2010a)** 'The Mental Health and Wellbeing of Adolescents on Remand in Australia'. *Australia and New Zealand Journal of Psychiatry, 44*, 6, 551-559.

Sawyer, M., Pfeiffer, S., Spence, S., Bond, L., Graetz, B. & Kay, D. (2010b) 'School-based Prevention of Depression: a Randomised Controlled Study of the Beyondblue Schools Research Initiative'. *Journal of Child Psychology and Psychiatry, 51*, 2, 199-209.

Scouller, K. & Smith, D. (2002) 'Prevention of Youth Suicide: How Well Informed Are the Potential Gatekeepers of Adolescents in Distress.' *Suicide and Life-Threatening Behavior 32,* 1, 67-79.

Senate of Australia (2010) *The Hidden Toll: Suicide In Australia.* Report of the Senate Community Affairs References Committee Inquiry into Suicide in Australia

Slade, T., Johnston, A., Teesson, M., Whiteford, H., Burgess, P., Pirkis, J. & Saw, S. (2009) *The Mental Health of Australians: Report on the 2007 National Survey of Mental Health and Wellbeing.* Commonwealth of Australia.

Slee, N., Garnefski, N., Van der Leeden, R., Arensman, E. And Spinhover, P. (2008) 'Cognitive Behavioural Intervention for Self-Harm: Randomised Controlled Trial'. *British Journal of Psychiatry, 192,* 202–211.

Slee, P., Lawson, M., Russell, A., Askell-Williams, H., Dix, K., Owens, L., Skrzypiec, G., & Spears, B. (2009) *KidsMatter Primary Evaluation Final Report*. Centre for Analysis of Educational Futures, Flinders University of South Australia.

Suicide Prevention Australia (2008) *Suicide Prevention and Capacity Building in Australian Indigenous Communities.* SPA Position Statement.

Suicide Prevention Australia (2009) *Suicide and Self-Harm Among Gay, Lesbian, Bisexual and Transgender Communities.* SPA Position Statement.

Suicide Prevention Australia (2010) *Crisis Response and the Role of the Emergency Services and First Responders to Suicide and Suicide Attempts.* SPA Position Statement.

Thompson, E., Eggert, L., & Herting, J. (2000) 'Mediating Effects of an Indicated Prevention Program for Reducing Youth Depression and Suicide Risk Behaviors'. *Suicide and Life-Threatening Behavior, 30*, 3, 252-271.

Urbis Keys Young (2002) *National Review of Tele Counselling and Web Counselling Services.* Prepared for Department of Health and Ageing, Canberra.

Vajda, J. & Steinbeck, K. (2000) 'Factors Associated with Repeat Suicide Attempts Among Adolescents'. *Australian and New Zealand Journal of Psychiatry, 34,* 437-445.

Vitiello, B., Brent, D., Greenhill, L., Emslie, G., Wells, K., Walkup, J., Stanley, B., Bukstein, O., Kennard, B., Compton, S., Coffey, B., Cwik, M., Posner, K., Wagner, A., March, J., Riddle, M., Goldstein, T., Curry, J., Capasso, L., Mayes, T., Shen, S., Gugga, S., Turner, B., Barnett, S., and Zelazny, J. (2009) 'Depressive Symptoms and Clinical Status During the Treatment of Adolescent Suicide Attempters (TASA) Study'. *American Academy of Child and Adolescent Psychiatry, 48,* 10, 997–1004.

Webb, L. (2009) 'Counting Girls Out: a Review of Suicide Among Substance Misusers and Gender Difference Implications in the Evaluation of Risk'**.** *Drugs: Education, Prevention and Policy*, *16,* 2, 103-126.

Wilson, C. & Deane, F. (In press) 'Brief Report: Need for Autonomy and other Perceived Barriers Relating to Adolescents' Intentions to Seek Professional Mental Health Care.' *Journal of Adolescence* In press

Wyn, J., Cahill, H., Holdsworth, R., Rowling, L. & Carson, S. (2000) 'MindMatters, a Whole-School Approach Promoting Mental Health and Wellbeing.' *Australian and New Zealand Journal of Psychiatry, 34,* 594-601.

Zahl, D., & Hawton, K. (2004). 'Repetition of Deliberate Self-Harm and Subsequent Suicide Risk: Long-term Follow-up Study of 11,583 Patients'. *British Journal of Psychiatry, 185*, 70-75.

Zenere, F & Lazarus, P. (2009) 'The Sustained Reduction of Youth Suicidal Behaviour in an Urban, Multicultural School District'. *School Psychology Review, 38,* 2, 189-199.