Submission by the Child and Youth Mental Health Service, Children's Health Queensland Hospital and Health Service

for the Human Right's Commission's Examination of Intentional Self-Harm and Suicidal Behaviour in Children and Young People

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1. Why children and young people engage in intentional self-harm and suicidal behaviour.

The risk factors underlying these behaviours are complex, multifaceted and cumulative, and occur in the context of great developmental change. Given they may operate independently in many children and young people, they are considered separately below.

1.1 Intentional self-harm

In a large scale study of Australian adolescents aged 15-17 years, Patton et al (1997) found that the presence of mental illness increased the likelihood of self-harm by a factor of 12 for males and 15 for females, with this association holding across all sub-types of self-harming behaviour. Depression has been consistently identified as a significant risk factor for self-harm (e.g., Kingsbury et al, 1999; Aglan, 2008), Additional risk factors include:

- Sexual activity and a history of self-harm (Hawton et al, 1997);
- History of physical and/or sexual abuse in childhood (Yeo et al, 1993; Favazza, 1997);
- Family dysfunction, conduct disorder and adolescent hopelessness (Aglan, 2008); and
- Drug and alcohol abuse and eating disorders (Alderman, 1987).

Whitlock (2009) notes that the literature on self-injury prevalence and gender is mixed, as is that relating to cultural background. There have been few studies of socioeconomic status and self-injury, and thus far few significant differences have been shown (Jacobson & Gould, 2007). The only demographic variable to be consistently linked to NSSI is sexual orientation. Young people identifying as bisexual or questioning have been shown to be at significantly elevated risk for self-injury compared to both their heterosexual and homosexual peers (Whitlock et al, 2006; 2009), especially among females.

Of the 5.1% of participants in Patton et al's (1997) study that reported self-harming in the previous 12 months, only six percent indicated a serious attempt to end their lives and six percent thought death was a probable outcome. While self-harm may be a risk factor in its own right for suicidal behaviour, the vast majority of children and young people who self-harm therefore do so without the intent to end their life. Indeed, some young people have described engaging in self-harm to reduce the likelihood to engage in suicidal behaviour, with Favazza (2006) conceptualising this as "a morbid form of self help". Intentional self-harm is therefore perhaps better referred to as non-suicidal self-injury (NSSI), as recommended by Australia's Mental Health First Aid program (see www.mhfa.com.au). This term will henceforth be used to refer to self-harm in order to differentiate it from suicidal behaviour.

A study of young people admitted to a psychiatric unit in Brisbane validated modification of the Self-Injury Motivation Scale for use amongst adolescents (Swannell et al, 2007).It identified four main reasons for engaging in NSSI:

Reason 1: Emotion Regulation, such as:

- Decrease an empty feeling
- Reduce a feeling of being utterly alone
- Distract myself from emotional pain by experiencing physical pain
- Produce a feeling of numbness when my feelings are too strong
- Punish myself for being bad

Reason 2: Communicating to/influencing others, such as

- Seek support and caring from others when I won't ask directly
- Show others how hurt I feel
- Control reactions and behaviours of others
- Irritate or shock someone in my life

- Show others how angry I am

Reason 3: Punishment/excitement, such as:

- To experience a high that feels like a drug high
- Provide a sense of excitement
- Punish myself for positive experiences/feelings
- Hurt someone important in my life
- Keep bad memories away

Reason 4: Psychoses/Lack of insight, such as:

- Satisfy voices inside or outside telling me to do it
- Please an important figure who wants me to do it
- Makes no sense: I don't know why and it seems to have no function
- Prevent myself from acting on suicidal thoughts
- Punish myself for telling secrets

It is rare NSSI fulfils only one of these functions, particularly when practiced regularly (Whitlock, et al., 2009). It may be considered a maladaptive coping strategy that can help regulate emotion in the short-term but does not help bring about positive longer-term change, and may in fact take on an addictive quality (Nixon et al, 2002). Even if it does not result in a suicide attempt, however, the consequences can be serious and long-lasting, and may include infection, permanent scarring, brain injury and organ damage.

1.2 Suicidal Behaviour

Christoffersen (2009) proposes six classes of risk factors relating to suicide attempts and completion amongst young people:

(1) Genetics and biological background, with a family history known to be a predictor of :suicidal behaviour among adolescents.

(2) Parenting and disadvantages during the formative years, which may lead to the development of low self-esteem, hopelessness and low degree of resilience.

(3) Structural factors, including unemployment, educational level and a high degree of socio-economic inequality.

(4) Norms and values in the local society, such as the influence of the media on suicidal behaviour.

(5) Present individual resources, including poverty, substance abuse, poor physical health, mental illness, homelessness and imprisonment; and

(6) Contemporary situation and opportunities, including access to means to attempt suicide.

Beautrais (2006) found that the same risk factors (mood disorder, history of psychiatric care, educational disadvantage, stressful circumstances) play a similar role in suicide completion and serious suicide attempts amongst young people. In a study of young people who had attempted suicide, some described in detail specific incidents which prompted their suicide attempt(s). However, it was more commonly a culmination of a long period of feeling depressed, isolated, stressed and exhausted (Griesbach, 2007).

A project funded by the Queensland Mental Health Commission (due for completion June 30th, 2014) aimed to gather data and evidence to identify and inform areas for systemic reform for the improved detection, assessment, and management of suicide risk in children and young people in Queensland (henceforth referred to as the QMHC Suicide Prevention Scoping Project). The Project Officer conducted 72 separate consultation interviews in April and May 2014 with representatives from within public mental health services, emergency services, Child Safety, Youth Justice, education, peak bodies, primary care, crisis support, non-government organisations and academia. Listed in Table 1 are the most frequent responses reported when participants were asked to identify what they considered to the be the three most important risk factors for suicide completion in children and young people, and the three most important protective factors for preventing suicide deaths in this age group.

Risk factors		Protective factors	
Response	**% reported**	**Response**	**% reported**
Previous trauma, abuse, neglect, exposure to domestic violence, or Child Safety involvement	30.55	Connectedness (to family, social group, school, or vocational support, etc.)	48.61
Lack of connection (to family, social group, or school, etc.)	23.61	Supportive parents, family, or friends	41.66
Substance use (alcohol or drug use)	23.61	Mental health promotion, prevention, and early intervention	19.44
Mental health issues (including untreated or undiagnosed but suspected mental health issues)	18.05	Awareness of and access to local health services	18.05
"Contagion": previous suicide or suicide attempt of family member, friend, or member of cultural group	18.05	Individual strengths in young person (e.g., resilience, self esteem, self efficacy, problem-solving capacity, or social competence)	16.67

Taken together, these findings support what might be considered the most comprehensive, evidence-based theory of suicidal behaviour, namely that proposed by Joiner and colleagues (see the review authored by Van Orden, Witte, Cukrowicz, Braithwaite, Selby, & Joiner, 2010). The interpersonal theory of suicidal behaviour proposes that the most dangerous form of suicidal desire results from the concurrent presence of two interpersonal factors: (1) thwarted belongingness (i.e. an unmet desire for connection with others) and (2) perceived burdensomeness, with the additional presence of the acquired capability to engage in lethal self-injury (which emerges via repeated exposure to physically painful and/or fear-inducing experiences). When both the desire and capability for suicide is present in a child or young person, they are at high risk for a lethal or near-lethal suicide attempt. This interplay of biopsychosocial factors accounts for the higher rates of suicide attempts and/or completion amongst disadvantaged groups, especially children and young people from an Aboriginal or Torres Strait Islander background (Australian Bureau of Statistics, 2012).

1. **The incidence and factors contributing to contagion and clustering involving children and young people.**

In the case of each of these behaviours, it is important to note that contagion effects are not just limited to the peers of a child or young person who engages in them. Workers, parents and carers and members of the wider may also be vulnerable, and so need to be considered in assessing the impact of exposure and designing interventions to address potential contagion effects from NSSI and suicidal behaviours.

2.1 Non-suicidal self-injury

Self-injury contagion has been defined as (a) acts of self-injury that occur in two or more persons within the same group within 24 hours, or (b) acts of self-injury occur within a group of statistically significant clusters (Walsh & Rosen, 1985). There is growing evidence that NSSI "is a behaviour subject to peer influence, perhaps particularly among adolescents ... [which] presents a large public health concern" (Prinstein et al., 2009, p89).
A recent study by Prinstein et al (2010) found that amongst both a school and an adolescent inpatient setting, there was a contagion effect on adolescents' own NSSI for girls, but not for boys, even after controlling for depressive symptoms as a predictor. Similarly, a large-scale community study of Chinese adolescents found engagement in NSSI by both their best friend and their friendship group independently and significantly predicted their own engagement in NSSI. Additionally, adolescents with NSSI tended to join peer groups with other members also engaging in NSSI (You et al, 2013). The latter finding supports the suggestion that contagion effects can be explained by the fact that vulnerable people might cluster together, and that NSSI is their response to a shared stressful event (Joiner, 2003). Another explanation is that the NSSI of others may provide a behavioural model for vulnerable individuals, thereby increasing the likelihood that their own thoughts of self-harm are acted on (O'Çonnor et al, 2012).
The Cornell Research Program on Self-Injury and Recovery in New York has developed a useful guide for developing and implementing protocols for schools to respond to NSSI (for more information see www.selfinjury.bctr.cornell.edu/documents/schools.pdf). This could be modified (with acknowledgment) to the Australian context for those educational sectors that do not yet have such a resource, as well as other settings in which exposure to a child or young person's NSSI could have a contagion effect.

2.2 Suicidal behaviour

Gould et al (2003) found that suicide clusters tend to occur more within populations of adolescents and young adults, with only minimal effects of suicide contagion being found among those over 24 years of age. Following exposure to a suicide, 15 to 19 year-olds were two to four times more likely to display suicidal behaviour themselves than any other age-group (Gould, Wallenstein, Kleinman, O'Carroll and Mercy, 1990). In a recent study, Colman et al (2013) surveyed more than 22,000 Canadian children aged 12 to 17 years who were asked if anyone in their school, or anyone they knew personally, had died by suicide and if they had seriously considered attempting suicide themselves in the past year. The researchers found that the risk of suicide was magnified even if the child did not know the deceased student personally, and that this risk was elevated two years later. It was greatest amongst 12 to 13-year-old children, who were five times more likely to have suicidal thoughts in the previous year than teens who had not been exposed to a death. By the time respondents were 16 or 17 years old, one out of four were reporting that somebody in their school had died of suicide.

The degree of impact also varies depending on characteristics of the individual whose death was the first in a potential cluster. For example, the suicide of someone who is very popular may have a greater impact than the suicide of someone who is isolated or considered to be a loner (Gould, 1990). Similarly, Poijula, Wahlberg and Dyregrov (2001) report that suicide contagion is less likely to occur amongst adolescents if they learn that a suicide victim was psychiatrically disturbed, was functioning in a psychopathological way, or was subject to individual psychosocial stressors.

Hawton and Williams (2005) conducted a systematic review regarding the influence of the media on suicidal behaviour. They found that young people in particular are more susceptible to the effect of media contagion, and that this impact is more pronounced when the means of death is identified, when there is prominent or repeated news coverage and when the suicide of a celebrity is being reported. More recently, Gould et al (2014) found that media stories about an individual with the word suicide in the headline, stories on the front page of a newspaper, photos of the dead person, detailed descriptions of the act of suicide and portrayals of the suicide victim as noble, angelic or heroic, are associated with more suicides in the same community. Given the important role the media may play in public discourse on suicidal behaviours, the Mindframe Media Resource was developed to encourage responsible, accurate and sensitive representation of mental illness and suicide in the Australian mass media. See more at: www.mindframe-media.info The repeat of a large-scale media monitoring study in 2006-7 (compared with one undertaken in 2000-01, prior to introduction of MindFrame) suggests that there has been a substantial increase in the number of stories regarding both mental health suicide, accompanied by more responsible reported as defined by the guidelines (Pirkis et al, 2008).

Andriessen (2009) proposed that postvention is an integral part of suicide prevention, given that survivors are a group at higher risk of suicide and yet they receive much less social support than survivors of other kinds of death (Moore and Freeman, 1995). A literature review by Cox et al (2012) identified the following strategies as promising in providing postvention following suicide clusters in young people: developing a community response plan; educational/psychological debriefings; providing both individual and group counselling to affected peers; screening high risk individuals; responsible media reporting of suicide clusters; and promotion of health recovery within the community to prevent further suicides. The headspace school support initiative established by the Australian government aims to support schools address possible contagion following the completed suicide of a student. See www.headspace.org.au/what-works/school-support.

2. The barriers which prevent children and young people from seeking help.

Rickwood, Deane and Wilson (2007) have noted that despite the high prevalence of mental disorders amongst young people, they tend not to seek professional help. The 2007 National Survey of Mental Health and Well-Being identified that only 29% of young people 16-24 years with a mental health problem had been in contact with a professional service of any type in the previous 12-month period, with this figure being even less for young men (13.2%).

Fortune et al (2008) undertook a large-scale study of 15-16 year olds regarding help-seeking before and after an episode of NSSI. They found that friends (40%) and family (11%) were the main sources of support, with far fewer seeking help formal services or health professionals. Barriers to doing so included perceptions of NSSI as something done on the spur of the moment and therefore not serious or important or to be dwelt upon. Many young people felt they should be able to (or could) cope on their own and feared that seeking help would create more problems for them and hurt people they cared about, or lead to them being labelled as an 'attention seeker'. The decision to seek help was in some cases hampered by not knowing whom to ask for help.

In a sample of 269 nonclinical Australian high school students, Wilson et al (2005) found suicidal ideation significantly predicted lower help seeking intentions such that the more distressed they felt, the less likely they were to seek help. Gilchrist and Sullivan (2006) noted young people may not disclose their suicidal thoughts or behaviours to others due to previous negative experiences of seeking help in the past. This included:

- not being able to identify a trusted adult
- inappropriate violations of privacy and confidentiality, and

- not feeling like their suicidal feelings were taken seriously

Rickwood et al (2007) noted young people are less inclined to seek help for mental health problems generally if they:

- hold beliefs that they should be able to sort out their own mental health problems on their own;
- hold negative attitudes toward seeking help or have had negative past experiences with sources of help; or
- are experiencing suicidal thoughts and depressive symptoms.

The authors note that young people from an Aboriginal or Torres Strait Islander background or other CALD group may be even less likely to voluntarily seek professional help when needed. Additional factors that may act as a barrier to help-seeking include insufficient knowledge about services, a lack of available services (especially in rural and remote areas) and the perception that the service may not be youth-friendly.

Rickwood et al (2007) noted that young people are more inclined to seek help for mental health problems if they:

- have some knowledge about mental health issues and sources of help;
- feel emotionally competent to express their feelings; and
- have established and trusted relationships with potential help providers.

Those around a young person in distress are in an important position to observe and respond to emerging signs of a mental health problem. The Youth Mental Health First Aid (YMHFA) training and a range of suicide prevention programs offered through Living Works (see www.livingworks.com.au) aim to increase knowledge, confidence and skills in these areas. The teen Mental Health First Aid program has recently been developed to equip young people with skills and knowledge appropriate to their role in acknowledging the important role peers may play in providing support to vulnerable young people; see www.mhfa.com.au/cms/teen-mhfa-course-information

4. The conditions necessary to collect comprehensive information which can be reported in a regular and timely way and used to inform policy, programs and practice. This may include consideration of the role of Australian Government agencies, such as the Australian Bureau of Statistics and the Australian Institute of Health and Welfare.

It is hypothesised that the following conditions are important to consider:

- ;
- clearly defined criteria regarding the target behaviours to ensure consistency in data collection;
- collaboration agreements between the governing federal agency and relevant stakeholders collecting individual data, such as emergency services, hospitals, mental health services, child welfare services and general practice;

- accessing data from specific services supporting the mental health of children and young people (including Kids Help Line, Reach Out and headspace), as well as data regarding uptake by children and young people of targeted services such as the ATAPS Suicide Prevention Program, the national Suicide Callback Service and Lifeline's Online Crisis Chat program;

- assurances that preserve the anonymity of those where small numbers of suicide completions may be thought to identify individuals e.g. a child from an Aboriginal background living in a remote area; and

- access to specialist expertise as appropriate to help appropriately contextualise the data, such as the Australian Institute of Suicide Research and Prevention based at Griffith University in Brisbane.

5. The impediments to the accurate identification and recording of intentional self-harm and suicide in children and young people, the consequences of this, and suggestions for reform.

The National Human Rights Action Plan (Australian Government, 2012) identifies the need to better collect data for the monitoring of human rights. This aligns with the priority placed on accurate and timely data collection by public mental health services across the country. Listed below are possible impediments, consequences and solutions in relation to the identification and recording of NSSI and suicidal behaviour in children and young people:

- *Lack of investment in regular prevalence studies amongst this age group:* The first National Survey of Mental Health and Well-being conducted in 1997 included a child and adolescent component, but this was not included (in the same way) in the 2007 survey. The Telethon Kids Institute won the tender to undertake Young Minds Matter, the second national child and adolescent component, with the survey commencing mid-2013. However, the infrequency of such surveys amongst this age group especially is concerning given the disproportionately high burden of disease associated with mental illness in children and young people, the fact that mental illness is a known risk factor for both NSSI and suicidal behaviour and in knowing that the accurate collection of data through surveys such as these can directly inform policy direction and funding allocation.
- *Lack of clearly defined scope of the behaviours, particularly in regards to the completion of NSSI.* As noted above, there can be confusion regarding the overlap between the concepts of self-harm and suicide, let alone what they each constitute. If there is to be more accurate identification and recording of these behaviours, it would be helpful to promote a shared understanding of their scope across sectors supporting children and young people.
- *Failure to cross-reference the issue in key policy documents*. For example, there is no mention of NSSI in the National Framework for Protecting Australia's Children 2009–2020 and no specific focus on children and young people in the LIFE (2007) framework. It is suggested that the National Children's Commissioner be a point of contact to critique landmark federal documents from the perspective of how they may impact on the well-being of children and young people.
- *Insufficient knowledge, skill or resources in the area by those who may be in a position to identify vulnerability*. Exposure to children and young people reporting experiences of NSSI and/or suicidal behaviour can be very distressing for family members, friends and

service providers, who may feel ill-equipped to respond appropriately. Increased access to training and support is required to build the capacity of all community members to better identify and support vulnerable children and young people. Youth Mental Health First Aid (YMHFA) and the Applied Suicide Intervention Skills Training (ASIST) are evidence-based programs available to interested citizens (as well as workers) that can increase knowledge, confidence and skills regarding NSSI and/or suicidal behaviours. Supporting their uptake through funding the wider availability of facilitators and courses would assist in more timely identification of children and young people reporting NSSI and/or suicidal behaviours. Such programs would be ideally included in the delivery of undergraduate courses for professions that may have contact with this group, such as teachers, social workers, nurses and youth workers. Service providers also need to develop, implement and review policies and procedures to complement their service response to children and young people;

- *NSSI (ICD-10 codes X60-X84) is not entered as on the National Minimum Dataset* for mental health, and so it is not captured in a systematic way to inform service planning at a national and state level. This makes it harder to ascertain the extent of children and young people presenting to public mental health services with this issue. It is suggested that this be considered for addition in future reviews of the data set.
- *There is no inclusion of either NSSI or suicidal behaviours in the ATODS national minimum data set*. This is unfortunate given substance use is a significant risk factor for both behaviours (Moller et al, 2013), including amongst children and young people (Corbould et al, 2010). It is therefore difficult to quantify the extent of children and young people presenting to public ATOD services with this issue. It is suggested that this be considered for addition in future reviews of the data set.
- *The National Outcomes and Casemix Collection for mental health do not include items for self-reported NSSI or suicidal behaviour,* While the Strengths and Difficulties Questionnaire (Goodman, 2001) is a valid and reliable measure of childhood emotional and behavioural difficulties, it does not include items regarding self-harm or suicidal behaviour. The accurate identification and recording of self-harm and suicidal behaviour in children and young people could be improved with the inclusion in the National Outcomes and Casemix Collection of a psychometrically valid and reliable self-report scale which includes items gauging self-harm and aspects of suicidal behaviour. This is particularly important in light of research indicating that young people are more likely to disclose suicidal ideation - and feel more comfortable doing so - via self-reported questionnaires (which can be either pen-and-paper based or electronic) rather than via direct questioning by a clinician (e.g., Bradford & Rickwood, 2012, 2014).

6. The benefit of a national child death and injury database, and a national reporting function.

According to Yanchar et al (2012) in reflecting on Canada's experience in implementing a public health approach to injury prevention in children and young people, "Effective injury prevention and control require a comprehensive and integrated surveillance system that can effectively monitor injuries and collect essential data on the circumstances of injury, including: mechanisms, causes, risk factors, treatment modalities and outcomes (Smartrisk, 2005). However, current injury data collection remains fragmented in Canada and comes from a variety of sources (e.g, the police, firefighters, coroner's offices and the health care system). The inability to link various databases and the presence of gaps in key data elements have made more comprehensive surveillance a necessary basis for maximizing research opportunities and developing effective strategies to

combat injury" (p 5). It is hypothesised that the same fragmentation has occurred in the Australian context, which justifies the need for a coordinated approach to data collection.
Timely awareness of the incidence of NSSI and suicide completion would enable early identification of community risk factors and clusters to help services plan their responses accordingly. The collection of accurate data is also vital in monitoring the scale of the problem of child and youth NSSI, suicide attempts and completion, as well as evaluating the impact of related policy development and intervention programs.

The National Injury Prevention and Safety Promotion Plan: 2004–2014 has identified seven national injury prevention areas for action in Australia, including a focus on children (ages 0–14) and young people (15–24). Specific efforts should be placed to ensure the collection of demographic data to help identify the groups that may be at heightened risk of injury and death, including those who are of a Aboriginal and Torres Strait Islander or CALD background, gender variant and sexually diverse, in out-of-home care or in detention.

The development and maintenance of a database monitoring NSSI and suicidal behaviour in children and young people could be managed by the National Injury Surveillance Unit to help implement and evaluate the NIPSP Plan, with findings to be reported to key stakeholders (including the National Children's Commissioner) to inform strategic policy development and funding allocation across relevant sectors.

The types of programs and practices that effectively target and support children and young people who are engaging in the range of intentional self-harm and suicidal behaviours. Submissions about specific groups are encouraged, including children and young people who are Aboriginal and Torres Strait Islanders, those who are living in regional and remote communities, those who are gender variant and sexuality diverse, those from culturally diverse backgrounds, those living with disabilities, and refugee children and young people seeking asylum. De-identified case studies are welcome.

7.1 NSSI

In 2012, the Royal Australian and New Zealand College of Psychiatrists endorsed local use of the clinical guidelines titled *Self-harm: The short term physical and psychological management and secondary prevention of self-harm in primary and secondary care* **(www.ranzcp.org/Publications/Statements-Guidelines/Self-harm-practice-guidelines.aspx). These were developed by the United Kingdom's** National Institute for Health and Clinical Excellence (NICE), with the key clinical points from the guidelines summarised below:

- All persons who self-harm (regardless of motivation) and present to hospital should be assessed by a mental health professional and a professional responsible for medical treatment.
- Mental health assessment should include a diagnostic interview, a mental health history obtained from family members and/or GPs, a risk assessment and the decision to treat as either an inpatient or outpatient.
- A management plan should be developed and should include follow-up arrangements with an identified health-care professional, either a clinician or a mental health service. The management plan needs to be clearly communicated to the patient and the family, and documented in the patient's records.

However, Washburn et al (2012) note that the NICE guidelines are not specific to NSSI, as they define self-harm as "self-poisoning or injury, irrespective of the apparent purpose of the act" (p.7). Only a small section of the guidelines focus on psychotherapeutic interventions, and little guidance is provided to the type of interventions that should be provided. Indeed, the NICE

guidelines only reference the need for at least three months of "an intensive therapeutic intervention" for people at risk for repetitive self-harm.

Washburn et al (2012) further note that despite an increased interest in NSSI in the literature, few psychotherapeutic treatments have been designed and evaluated specifically for NSSI and none have targeted young people. They suggested this lack of research attention may change with adoption of NSSI as a distinct disorder in the fifth edition of the Diagnostic and Statistical Manual of Mental Disorder, published in 2013. They provide an overview of common recommendations integrating the available evidence with clinical consensus, some of which are listed below:

- Assessment of NSSI should include an understanding of current and past NSSI behaviour (types, methods, locations, frequency, age of onset, severity, urges to self-injure), delineation of biopsychosocial risk and protective factors for NSSI, a comprehensive suicide risk assessment, assessment of co-occurring disorders (especially depression, substance abuse, eating disorders, impulse control disorders, posttraumatic stress disorder), and examination of the context and functions of NSSI.
- Motivational enhancement strategies may be necessary for effective treatment, both prior to and throughout treatment.
- Cognitive and behavioural interventions offer the most promise in providing therapy to adolescents with NSSI.
- Skills training is likely to be central to the treatment of NSSI. Training should focus on improving emotion regulation, problem-solving, interpersonal, and communication skills.
- Treatment may need to focus on physical factors. Body image concerns as well as alienation from the body may need to be addressed directly for some individuals with NSSI. Further, physical self-care and exercise hold promise as important components to treatment
- Understanding and addressing social contagion with NSSI may be prudent, especially when providing group-based treatment or working with an adolescent's school
- So-called "contracts for safety" or "no-harm agreements" are either ineffective or harmful, and treatment should instead focus on using contingency management strategies and relapse prevention plans.

Mental Health First Aid has used the Delphi methodology of expert consensus to develop a series of guidelines to support people responding to a range of mental health conditions, including NSSI (Kelly et al, 2008). Although not specific to children and young people, the guideline is freely available to the general public to download and was updated only in 2014 (www.mhfa.com.au/sites/mhfa.com.au/files/MHFA_selfinjury_guidelinesA4%202014%20Revised_1.pdf).

7.2 Suicidal behaviour

A literature review was undertaken during the QMHC Suicide Prevention Scoping Project for Australian or international systems, models of care, or models of service that have been shown to be efficacious or effective in reducing child and youth suicide risk. Preference was given to reviewing systematic reviews, meta-analyses, and randomised controlled trials where possible. The literature review covered articles published between 2004 and 2014, and databases searched included:

- headspace's searchable "Evidence Maps" database (www.headspace.org.au/what-works/evidence-maps),

- The Centre of Research Excellence in Suicide Prevention's Suicide Prevention RCT Database (www.cresp.edu.au/databases/sprct),
- clinicaltrials.gov,
- PsycInfo,
- EBSCOhost, and
- Cochrane Collaboration.

Relevant systematic reviews and individual randomised controlled trials regarding what systems or models of care are efficacious or effective with regards to child and youth suicide risk are shown in Appendix 1. No relevant meta-analyses of the empirical literature were found.

The four recent systematic reviews identified highlighted that many of the studies conducted were of low methodological quality, making it difficult to make sound findings as to which interventions were efficacious or effective. However, Robinson et al. (2013) and Steele and Doey (2007) reported that the most promising interventions were gatekeeper training (including training of young people themselves) and/or screening programs. Additionally, Steele and Doey (2007) reported that intensive, home-based intervention appeared to result in reduced rates of suicide ideation and suicide attempts.

Sixteen individual randomised controlled trials were located. Interventions that were reported to result in reduced rates of suicide attempts included a two-day school-based suicide prevention program for young people (Signs of Suicide; Aseltine et al., 2007) and intensive (at least weekly) home-based, family-centred therapy with phone support over three to six months (Huey Jr et al., 2004). Interventions that were reported to result in reduced rates of suicide ideation (though not necessarily reduced rates of suicide attempts) included weekly attachment-based family therapy over 12 to 16 weeks with 24-hour phone support (G. M. Diamond et al., 2013; G. S. Diamond et al., 2010), and the delivery of four face-to-face aftercare sessions over 12 weeks after nine weeks of outpatient treatment (Kaminer et al., 2006). A psychoeducational intervention for a youth-nominated support person with regular phone support was reported to result in decreased suicide ideation for females (but not for the overall group including both males and females) in one study (King et al., 2006), and reported to result in a temporary short-term reduction in suicide ideation for young people who had attempted suicide multiple times in another study (King et al., 2009).

Listed below are some general comments about recommended practice and available programs to support two particularly at-risk groups of children and young people experiencing NSSI and/or suicidal behaviours:

(i) Aboriginal and Torres Strait Islanders

- Indigenous young people are a significantly disadvantaged group, and individually may experience high levels of discrimination in achieving their life goals. They are over-represented amongst the Child Safety and youth justice systems, and have higher rates of rates of suicide completion, especially when it comes to children (Commission for Children and Young People and Child Guardian, 2009)
- Services should be sensitive to experiences of mistrust and individual (as well as intergenerational) trauma in this group, especially amongst young women. In responding to this group they need to have flexibility in their model of service provision to engage indigenous children and young people as well as their families and communities e.g., offering outreach, additional time allowed for engagement, undertaking a culturally-informed assessment.
- Cultural "brokers" may be engaged/employed by a service to help bridge the gap between a traditional service model and the needs of indigenous clients, such as by vouching for

the service and/or undertaking a joint engagement/assessment session. The latter approach may have the advantage of both collecting information about the broader cultural context of a young person's life (such as what is happening in their home community e.g., cluster of suicides), and/or viewing a potential mental health problem through a cultural lens (e.g. to determine whether cutting is indicative of a metal health problem, or the appropriate expression of grief in the form of sorry cuts following the death of a loved one). The employment of indigenous health workers by MHATODS has proved successful in ensuring the engagement of indigenous young people in detention, such that their equivalent rates of access to the service with non-indigenous clients indicated that this resource had helped overcome cultural barriers to receiving support for their mental health and/or drug and alcohol problems (Stathis et, 2007).

- Culturally-appropriate resources need to be available to engage and support indigenous children and young people. In recognition of the limited options available, MHATODS developed a suite of four drug and alcohol and seven mental health brochures (including one each on NSSI and suicide) with - and for - indigenous youth people. They have proved popular with clients and service providers, with hard copies distributed publically through Queensland's Alcohol and Drug Information Service and available to download from www.dovetail.org.au/.
- Services should provide follow-up for young people across the continuum of care, including helping them access support when they exit a service. This would ideally include linking them with a community agency which may not necessarily have a clinical focus, but can help them access mentoring in (re)establishing connections with a wider community.
- Dr Tracey Westerman is an indigenous psychologist who has developed a range of training packages for service providers regarding the assessment and management of mental health problems (including suicide) in indigenous clients, with a particular focus on young people. See www.indigenouspsychservices.com.au.

(ii) those from a CALD background, including refugees and those seeking asylum:

- Encourage pride and participation in culture and language of origin as this has can act as a protective factor for mental health (e.g., Colquhoun & Dockery, 2012). Similarly, facilitating settlement into Australia is important, as high levels of connection with the host country have been linked with positive mental health amongst people from a CALD background (Beirens et al, 2007).

- Collect data on cultural background (not just country of birth) so agencies are aware of cultural needs, as well as access by CALD groups to help identify and action service gaps.
- Use interpreters with consumers and carers – especially essential in risk management - to ensure the development of a shared understanding regarding management plans. This is often poorly done, as highlighted in the Queensland report *Still a Matter of Interpretation* (Queensland Council of Social Services, 2012). Although it is focussed on the general provision of services to CALD populations, not specifically to children and young people from a CALD background experiencing NSSI and/or suicidal behaviour, the report identifies as a priority area for health services the need to review the adequacy of current cultural competency approaches.
- Provide outreach to children and young people, as people from a CALD background are less likely to present to mental health services (Cooper et al, 2013);

- Provide targeted stigma reduction programs to children and young people (and their carers) regarding mental health issues in this age. Examples of this approach include Stepping out of the Shadows (although it is not targeted at this age group) and BRiTA Futures (developed in Queensland, and targeting young people).
- Address racism specifically by not just identifying it as "bullying" but naming and managing it as racism.
- Implementing specific suicide prevention strategies for CALD groups, especially asylum seekers who arrive by boat given their heightened level of vulnerability. The Queensland Program for the Assistance of Survivors of Torture and Trauma delivers NEXUS, a suicide prevention program for young refugees aged 12-24 years. It aims to promote well-being and resilience by increasing connectedness, locus of control and perceived academic performance amongst participants.

8. The feasibility and effectiveness of conducting public education campaigns aimed at reducing the number of children who engage in intentional self-harm and suicidal behaviour.

The lack of a widely accepted measure has made it difficult to evaluate the effectiveness of suicide prevention programs. Assessments of help-seeking behaviour, risk factors (e.g. depression and substance abuse), previous suicide attempts and ideation may therefore be employed in evaluation efforts. Kelly, Jorm and Wright (2007) noted that while there is little evidence about what works when educating young people about mental health, there is a great deal to be learned from the general health promotion literature. A review of the past 10 years' mass media health campaigns (Noar, 2006) found that there are seven important components of a successful campaign, as summarised below:

1. It is necessary to carry out preliminary research with the audience to whom the messages will be directed. Performing focus-group research or other qualitative research designs ensures that messages are tailored appropriately.
2. A proven theoretical base on which to build the campaign is essential. There are remarkably few campaigns that are able to demonstrate that they have a solid theoretical basis.
3. It is important to divide the intended audience into relatively homogeneous groups, to ensure that messages are tailored to the needs and preferences of those groups.
4. Messages need to be designed to appeal to the different groups; for example, the needs of young people at high risk of mental health problems may be very different from the needs of young people in general, and the preferred style of messages may be very different for young adults and adolescents.
5. Messages should be placed with appropriate types of media; for example, messages directed at adolescents may be more effectively placed in cinema advertising and youth media, rather than in newspapers.
6. Evaluation must be carried out to ensure that the messages are reaching the target audience. If they are not, it is important to rethink the approach and try something different.
7. Campaigns must be evaluated to find out whether they have been successful in changing behaviours and attitudes, or meeting other goals. Evaluation built into any campaign, at any level, ensures that resources are not wasted.

Kelly et al (2007) undertook a review of four types of interventions to improve the mental health literacy of young people: whole-of-community campaigns; community campaigns aimed at a youth audience; school-based interventions teaching help-seeking skills, mental health literacy, or

resilience; and programs training individuals to better intervene in a mental health crisis. These are summarised in Appendix 2.

Beautrais et al. (2007) reviewed the evidence for effective suicide prevention strategies in New Zealand. This review acknowledged that the effectiveness of suicide prevention initiatives has not been sufficiently evaluated, but reported on the evidence that was available. The interventions highlighted as best practice were medical practitioner and gatekeeper education, and restriction of access to lethal means. Beautrais et al. (2007) also identified several approaches directed at suicide prevention which have been found to be harmful or potentially harmful. These were: school-based programs that focus on raising awareness about suicide; public health messages about suicide and media coverage of suicide issues; no-harm and no-suicide contracts in mental health settings; and recovered or repressed memory therapies.

Some of the issues raised by Noar (2006) may present challenges to the feasibility of developing, implementing and evaluating a universal public education campaign, but need to be considered if it is to be effective. In suggested above, NSSI and suicidal behaviours should not be explicitly identified as the target of the campaign as this could help normalise them amongst children and young people, especially those who may be particularly vulnerable.

9. The role, management and utilisation of digital technologies and media in preventing and responding to intentional self-harm and suicidal behaviour among children and young people.

An online survey undertaken by the Australian Communications and Media Authority (ACMA) in 2013 examined the use of social media by 1511 young people ranging in age from eight to 17 years. It identified that 95% of eight to 11 year olds surveyed had accessed the internet in the last four weeks, with this rising to 100% by the age of 16-17 years old. The internet is a positive experience for the majority of 12-17 year olds. Facebook was the most popular social network service for 12-17 year olds, with the majority of users accessing the site at least daily and in some case more often. In comparing results to those yielded from a similar survey conducted in 2009, its appears the importance of the internet has increased significantly across all age groups, especially amongst children.

The internet (and accompanying digital technologies and media) therefore play an important role in shaping the lives of Australian children and young people, including those who may engage in NSSI and/or suicidal behaviours. However, these mediums may promote or glorify (or at least normalise) such behaviours, and therefore contribute to the contagion effect noted above. For example, a recent study by Lewis et al (2011) examining the accessibility and scope of the 100 most-frequently viewed NSSI videos available on YouTube noted that they had been seen over two million times and 80% were accessible to a general audience. Viewers had rated them positively, with the tone being largely factual/educational or melancholic with explicit imagery being common. The authors suggested professionals need to be aware of this ease and potential impact of access in working with children and young people who engage in NSSI.

In 2006, Australia was the first country in the world that enacted legislation to effectively bans 'pro-suicide' websites (i.e., websites that provide access to means of suicide, reinforce pro-suicide ideologies and/or facilitate suicide pacts), although this is limited to sites developed in Australia. Impact of the legislation has not been rigorously evaluated, but it appears to have deterred Australian individuals and organisations who might have otherwise posted pro-suicide material on local sites (Pirkin et al, 2009). Since then the development of social media more widely has seen the emergence of a range of new opportunities to share content relating to mental health issues, especially amongst young people as the early adopters of such mediums. In May 2014, the USA's Entertainment Industries Council launched Social Media Guidelines for Mental Health Promotion and Suicide Prevention (see www.eiconline.org/teamup/wp-content/files/teamup-mental-health-social-media-guidelines.pdf). Topics covered include social media strategy; content consideration

(for the areas of both mental health and suicide prevention), language and images; building online engagement; privacy and safety concerns; and addressing suicide-related posts by others. The guidelines have been endorsed by Facebook, and although developed in America could be considered to inform mental health promotion and suicide prevention activities for children, young people, families, services and online communities in Australia.

The internet more generally can be used to promote access to support for vulnerable groups, with a systematic review by Kauer et al (2014) examining whether online mental health services improve help-seeking for young people. The 18 studies that met the criteria for the review suggested that this was not the case. However, results suggested that people regularly used these services, would generally recommend the services to friends, would use them again, and overall found them easy to use and satisfactory. Furthermore, young people suggested that they were accessible and available, anonymous, allowed personal stories to be shared with others, were trustworthy and were less stigmatizing than phonelines and face-to-face services. The findings suggests that although online services may not enhance help-seeking directly, they did appear to increase mental health literacy which is likely to assist young people in recognition and management of mental health problems and may also reduce the self-stigma associated with mental illness. As with face-to-face services, some barriers to online services remain such as unfavorable content, a lack of awareness of online resources, some young people's preference for face-to-face services, lack of motivation to seek help online, the lack of trust in websites and the tendency of young men to seek online help less often than females.

Gender differences in help-seeking are increasingly attracting attention in terms of both research and resources. For example, a series of surveys and focus groups undertaken with young Australian men (aged 16-24 years) by Ellis et al (2013) yielded negative views on support services, and a related perception that seeking professional help may challenge the accepted view of masculinity. Participants suggested that interventions should not be explicitly branded as 'mental health interventions', but rather tap into male sub-cultures, focus on building strength or improving performance and be action- rather than talk-based. Results also indicated a strong willingness by young men to use the internet to find mental health information and support, and satisfaction with the outcome when they do so. There are a range of online supports designed to help improve the mental health needs of young men which have been developed specifically to address the finding that 80% of people who complete suicide are male.

Another innovative website for supporting the mental health of Australian young people is www.tuneinnotout.com, a multi-award winning youth health portal. It features videos, stories, blogs, music and factsheets from services across the country, brought together in one central location. Young people are encouraged to get involved in a range of ways, with content moderated by professionals and resources linked to Facebook, twitter, Google plus and Pinterest. A search of the site identified more than 60 posts relating to the topic of suicide, and more than 50 for the term "self harm".

Finally, pivotal to the area of harnessing innovative technology for the improved mental health of young Australians is the Young and Well Collaborative Research Centre. (YAW_CRC; see www/youngandwellcrc.org.au). The Centre is a Australian-based, international research centre that unites young people with researchers, practitioners and policy makers from over 75 partner organisations across the non-profit, academic, government and corporate sectors. It was established in 2012 with the purpose of exploring the role of technology in young people's lives, and to determine how these technologies can be used to help improve the health and well-being of young people aged 12-25 years. Longer-term, its aims comprise the following:

1. A reduction in youth suicide, suicide attempts and self-harm in young people.

2. A reduction in youth mental health problems including depression, anxiety, problematic drug and alcohol use and eating disorders.

3. Increased rates of help-seeking by young people.
4. A reduction in lost productivity of young people due to days absent from education or work.
5. A reduction in social isolation experienced by young people and their families.
6. Improved mental health resulting in a reduction in medical, carer and welfare costs.
7. An improvement in quality of life for young people, their families and their communities.

It would be important to engage the Centre in any ongoing discussions about future directions arising from the Human Rights Commission's inquiry regarding the use of technology in supporting children and young people experiencing - or at risk of - NSSI and/or suicidal behaviours.

Appendix 1. Review of What Systems or Models of Care Work in Child and Youth Suicide Prevention

Reference	Population	Type of study	Main findings
		Systematic reviews	
(Mann et al., 2005)	All ages with section for children & adolescents	Systematic review	Reviewed 8 adolescent studies on suicide prevention. School curriculum-based programs improve problem solving, stress-coping abilities, knowledge & attitudes about mental illness & suicide, but insufficient evidence that intervention prevents suicide behaviour.
(Robinson et al., 2011)	Children & adolescents	Systematic review	Retrieved 15 published trials and 6 ongoing trials. Findings: Reporting of the conduct of trials was poor, making it difficult to assess the risk of bias. The reporting of outcome data was inconsistent. No differences were found between treatment and control groups except in one study that found a difference between individual cognitive behavioural therapy and treatment as usual. Group-based problem solving therapies vs standard care, no difference in suicidal ideation post intervention or at follow up. Individual problem solving or skills based therapies compared to control intervention (as opposed to TAU), found no reduction number of people with suicide attempt or levels of suicidal ideation. Interventions targeting family, youth nominated support intervention, emergency access intervention: no significant effects with regard to outcomes of interest suicidal ideation or suicide attempt.
(Robinson et al., 2013) (Robinson et al., 2013 cont.)	Children & adolescents	Systematic review	Retrieved 15 school-based suicide intervention studies implemented in schools between 1988 and 2011 (majority in USA). Programs included videos of young people depicting suicidal behaviours, discussion groups, psychoeducation. Programs aimed at reducing suicide-related behaviours, changing unwanted attitudes towards suicide behaviour and suicidal peers, increasing students' knowledge of suicide risk factors, warning signs in themselves and others, and help seeking strategies., screening component between 1 – 2 sessions over 4 – 12 weeks. Findings: Most effective for intervention was gatekeeper training and screening programs. 6 studies showed reduced rates of suicide-related behaviour (Aseltin et al., 2004; Aseltine et al., 2007; King et al., 2011; Klingman et al., 1993; Orbach et al., 1993). 9 of 15 studies found improvements in knowledge of suicide and/ormental illness. 6 studies reported improved help seeking behaviour, 5 studies showed no change at posttreatment. Methodological concerns (i.e.lack of RCTs) were noted.
(Steele & Doey, 2007)	Children & adolescents	Systematic review	Hospital-Based Services No empirical evidence that hospitalisation or day treatment reduces rates of suicidal ideation, attempts, or completed suicides (Gould et al., 2003) Home-Based Services Intensive home-based services as an alternative to hospitalisation. Services include assessment session, 4 intensive, family-centred, home-based sessions adjunct to routine care. Results within 3 studies listed improved suicidal ideation, reduction in

Reference	Population	Type of study	Main findings
			costs, minimised disruption to families, increased parental satisfaction (Byford et al., 1999); reduced the rates for suicide attempts over a 1-year period, 44% readmission during 1-year follow up (Henggeler et al., 2003; Huey et al., 2004). School-Based Interventions (based on findings between 1989-1996) Curriculum-based programs aimed to increase awareness students' help-seeking behaviour have mixed results of effectiveness. 5 studies reported reduced suicidal behaviour (Orbach et al., 1993; Ciffone et al., 1993; Kalafat et al., 1994, Kalafat et al., 1996); 3 studies reported no improvements (Vieland et al., 1991; Shaffer et al., 1991; Shaffer et al., 1990); 4 studies report negative effects (decreased positive attitudes, increased hopelessness and maladaptive coping responses among boys, negative reactions among students with a history of suicidal behaviour & failure to recommend suicidal youth to mental health professionals for evaluation (Overholser et al., 1989; Shaffer et al., 1991; Kalafat et al., 1994; Shaffer et al., 1990). Skills-based training school programs showed evidence of reduction in suicidal behaviour, improvement the students' attitudes, emotions, and coping skills (Klingman et al., 1993; Orbach et al., 1993; Zenere et al., 1997)
Individual Studies			
(Aseltine et al., 2007)	Adolescents: 13-14 years; school based	Randomised experimental design	2-day school based suicide prevention program (Signs of Suicide) teaching students to recognise & respond to symptoms of suicide and depression in themselves and others. Program consists of videos, discussion guide, brief screening instrument for depression, and optional gatekeeper training tool for school staff. Significantly reduced suicide attempts; increased knowledge; improved understanding about depression and suicide at 3 months follow up
(G. S. Diamond et al., 2010)	Adolescents: 12-17 years	Randomised controlled trial	A 12-16 week attachment-based family therapy of weekly individual & family meetings with access to 24-hour crisis phone. Significantly reduced self-reported suicidal ideation and clinical recovery on suicidal ideation during treatment, post-treatment & follow-up at 24 weeks.
(G. M. Diamond et al., 2013)	Adolescents: 12-17 years; lesbian, gay, & bisexual	Randomised controlled trial	A 12-16 week attachment-based family therapy of weekly individual & family meetings with access to 24-hour crisis phone. High treatment retention, significantly reduced suicidal ideation, depressive symptoms, and maternal attachment–related anxiety and avoidance at 12 week posttreatment follow up.
(Donaldson et al., 2005)	Adolescents: 12-17 years	Randomised controlled trial	6-month intervention skills-based training: 6 individual sessions and 1 family session delivered over 3 months followed by a maintenance phase comprising 3 monthly sessions. Additional family sessions + 2 crisis sessions offered at therapist's discretion. 60% retention rate. Significantly decreased suicidal ideation and depressed mood at 3 & 6 month follow up. No significant differences between treatment group & TAU. 6 reattempts in 6 month follow up period.
(Grupp-Phelan et al., 2012)	Adolescents: 12-17 years	Randomised controlled trial	Patients presenting to ED provided with short motivational interview, barrier reduction, outpatient appointment established, reminders before scheduled appointment.

Reference	Population	Type of study	Main findings
			Significant increase in attendance to appointment (than control group: phone number for mental health provider) at 60 day follow up. No significant improvement on depressive/suicidal symptoms.
(Hooven et al., 2012)	Adolescents: 14-19 years	Randomised controlled trial	2 home-based parent sessions training + follow up phone call and 1 adolescent session, reduced risk factors (depression, hopelessness, anxiety, and anger); increased protective factors (personal control, problem-solving coping, and family support) during intervention, and at 2.5month, 9 month &15 month follow-ups.
(Huey Jr et al., 2004)	Children & adolescents: 10-17 years	Randomised controlled trial	Family-centred, home-based intensive service (Multisystemic Therapy), minimum1 session per week for 3 to 6 month period, contact is daily if needed. Significantly reduced suicide attempt rates (compared with emergency hospitalisation) over a 1-year period, but 44% of the patients required admission to hospital during the follow-up period.
(Hughes & Asarnow, 2013)	Adolescents: 10-18 years; Presenting to ED; USA	Randomised controlled trial	1 family-based CBT session for use in ED with follow up phone calls after discharge at 1,2& 4 weeks post-discharge significantly increased the likelihood of youths receiving outpatient treatment, (psychotherapy & medication/psychotherapy).
(Kaminer et al., 2006)	Adolescents: 14-18 years with alcohol use disorders; USA	Randomised controlled trial	12-week (4 x 50min) face-to-face aftercare sessions following 9 week outpatient treatment significantly reduced suicidal ideation. 12-week (4 x 15min) telephone aftercare sessions following 9 week outpatient treatment showed trend of reduced suicidal ideation. Higher baseline suicidal ideation was associated with higher retention at the end of treatment and through aftercare
(King et al., 2006)	Adolescents: 12-17 years; USA	Randomised controlled trial	Adolescent-nominated support persons undergo 1 tailored suicide prevention psychoeducational session with regular follow up phone calls from clinicians. Support persons maintain weekly supportive contact with suicidal adolescent over 3 months to supplement standard treatment following psychiatric hospitalisation. YST-1 significantly reduced self-reported suicidal ideation & mood-related functional impairment in adolescent female treatment group (relative to TAU female group). YST-1 did not significantly reduce suicide ideation or attempts, internalizing symptoms, or related functional impairment for the overall adolescent group (males & females).
(King et al., 2009)	Adolescents: 13-17 years; USA	Randomised controlled trial	Youth-Nominated Support Team provided tailored psychoeducation to youth-nominated adults in addition to weekly check-ins for 6 months following hospitalization. In turn, these adults had regular supportive contact with adolescents. Decreased suicidal ideation for multiple suicide attempters during initial 6 weeks post-discharge (small-to-mod effect size). Reduced functional impairment for non-multiple attempters at 3 and 12 months follow up (small effect sizes). No long term significant reduction of suicide attempts or suicidal ideation.
(Robinson et al., 2012)	Adolescent/Young Adult: 15-24 years	Randomised controlled trial	Postcard intervention to supplement TAU following presentation to a service, but not accepted. Postcard sent once per month for 12 months, enquiring about well-being, provides reminders of individual sources of support and promotes evidence-based self-help strategies. At 12 month and 18 month follow up no significant reduction in suicide

Reference	Population	Type of study	Main findings
			risk. Participants reported to like receiving the postcard and that they used the strategies recommended.
(Sareen et al., 2013)	Gatekeepers: 16 years and over	Randomised controlled trial	2 day Applied Suicide Intervention Skills Training (ASIST), a form of gatekeeper training aimed at improving ability to recognise & identify and assist those at risk for suicide. No significant improvement on capacity for individuals to intervene with suicidal behaviour, self-reported preparedness or gatekeeper behaviours (relative to 2 day resilience training group) at posttreatment follow ups. Trend towards increase in suicidal ideation among treatment group.
(Shpigel et al., 2012)	Adolescents: 14-18 years	Randomised controlled trial	12 weekly attachment-based family sessions for adolescents and mothers (independently and together). Decreased maternal psychological control, increased decreases in maternal psychological control and increases in maternal psychological autonomy granting, decreased attachment-related anxiety and avoidance from pre to 3 months posttreatment. Decreased adolescents' perceived parental control during treatment was associated with reduced adolescents' depressive symptoms from pre-treatment to 12 weeks posttreatment. Did not find significant reduction in suicidal ideation.
Wharff et al., 2012	Adolescents: 13-18 years	Randomised controlled trial	Family-based crisis intervention (FBCI) single session in ED with 5 follow up phone calls over 3 month period. No significant difference found between treatment and TAU groups. 12.7% of treatment group hospitalised within the 3 month follow up. Treatment group significantly less likely to be hospitalised than TAU (35% vs 55%). Single-visit model of crisis intervention FBCI can enable safe discharge.

Appendix 2 – Summary of interventions to improve the mental health literacy of young people

Intervention/setting	Aims	Intervention	Evaluation	Findings
Whole-of-community interventions				
beyondblue: the National Depression Initiative (public awareness campaign)10 Australia Evidence level: III-2*	To improve the knowledge and attitudes of the public about depression and related conditions, including people experiencing depression, their families and workplaces, young people, older people, and Indigenous Australians	Public awareness activities including distribution of posters, pamphlets and postcards, a website with information, television advertising, advertisements in print media and educational videos	Ongoing evaluation via the national depression monitor, and research done by independent bodies	Improvements in knowledge and attitudes of the public have been found in the Australian states where beyondblue is most active. beyondblue is a well known organisation, as evidenced by research asking about mental health organisations
The Mental Health Awareness in Action program11,12 United Kingdom Evidence level: III-2*	To improve knowledge about mental illness and decrease stigma in those who support young people in the community, and police officers	Two 2-hour information sessions about mental illness. Half the participants had a consumer–educator facilitate one of the sessions to provide a personal perspective	Pre- and post-intervention questionnaires with 78 adults and 109 police officers	Improved post-intervention knowledge in both groups. No improvement in desired social distance. Contact with a consumer–facilitator did not predict improved attitudes
Community interventions targeted at young people				
The Compass Strategy4 Australia Evidence level: III-1*	To improve mental health literacy and help-seeking for depression and psychosis among young people	Community awareness campaign targeting an intervention region including cinema, radio and newspaper advertising, printed materials, a website and information telephone line, and close liaison with community service providers.	Pre- and post-intervention mental health literacy survey (cross-sectional) conducted in intervention and control regions of Melbourne; 1200 respondents aged 12–25 years	Improved awareness of mental health campaigns; better identification of depression in self; improved help-seeking for depression; correct estimate of prevalence of mental health problems; increased awareness of suicide risk; reduction in perceived barriers to help-seeking

School-based interventions				
MindMatters ("Understanding mental illness" materials)13,14 Australia Evidence level: IV*	To increase mental health literacy and decrease social distance in secondary schools	Varied. MindMatters provides curriculum support materials to all schools in Australia, but the use of these is not standardised. Schools are encouraged to make the materials fit in with their own curriculum	No baseline questionnaires. Students and school staff completed post-intervention questionnaires	No change in social distance measures. Changes in mental health literacy could not be assessed
beyondblue Schools Research Initiative (mental health literacy component)15 Australia Evidence level: III-1*	To increase mental health literacy and decrease social distance in secondary schools	Twenty-five intervention schools ran a number of resilience enhancing programs, mental health literacy curricula and related activities over a 3-year period, and mental health information sessions were conducted for the school community. Twenty-five matched schools were selected as controls	Questionnaires at different stages of the 3-year intensive intervention, in intervention and control schools	Expected in the next 12 months
Mental Illness Education16 Australia Evidence level: IV*	To reduce stigmatising attitudes, and improve mental health literacy and help-seeking intentions in secondary school students	Information and awareness sessions run in-school by a presenter and either a consumer–educator or carer–educator, or both	Pre- and post-intervention questionnaires completed by students (n = 457) who did and did not attend the information sessions	Improvements in mental health literacy, including the ability to recognise mental illnesses; modest improvements in stigmatising attitudes; weak improvements in help-seeking intentions
"Crazy? So what! It's normal to be different"19 Germany Evidence level: III-2*	To reduce stigmatising attitudes and decrease desired social distance from people with schizophrenia in secondary school students	A highly interactive "project week" involving meeting with and talking to a young person with schizophrenia, discussion of the impact of stigmatising attitudes, and information about living with schizophrenia	Pre- and post-test, with 90 students and 60 controls. One-month follow-up	Decrease in stigmatising and discriminatory attitudes toward people with schizophrenia. Increased willingness to enter a social relationship with a person with schizophrenia. Benefits were maintained at follow-up

Individual training programs				
Mental health First Aid Australia Australia Evidence level: II*	To improve recognition of mental health problems, teach participants to offer help and support to those suffering from mental health problems, and increase help-seeking through facilitation by participants	Twelve-hour course teaching recognition, causes, risk factors, and treatments for depression, anxiety disorders, psychosis, substance use disorders, and related crises	One uncontrolled trial with the public (n = 210); two randomised wait-list controlled trials in workplaces (n = 301); one randomised wait-list controlled effectiveness trial in a large rural area (n = 753)	Improved ability to identify psychosis and depression; greater concurrence with professionals about appropriate treatments; reduction in desired social distance from a person with mental illness; improved confidence in offering help; more help offered
Suicide Intervention Project21 Australia Evidence level: IV*	To train peer supporters in a university environment to recognise emotional distress in fellow students, feel comfortable talking to them about feelings, and know when to suggest using services	Two-day Applied Suicide Intervention Skills Training (ASIST) program; Mental Illness Education session (consumers and carers speak of the experience of living with mental illness); presentations by university counselling services on campus; written materials	Pre-test (n = 42) and 2-week post-test (n = 27). Participants were assessed on mental health literacy, intention to offer help, number of conversations about feelings, perceived behavioural control, and social connectedness	Modest improvements in mental health literacy were detected, but no improvements in behaviour. Only 2 weeks elapsed between intervention and assessment. No follow-up evaluation was conducted
National Health and Medical Research Council levels of evidence. I: Systematic review of randomised controlled trials. II: One properly designed randomised controlled trial. III-1: One well designed pseudo-randomised controlled trial. III-2: Non-randomised trials, case–control and cohort studies. III-3: Studies with historical controls, single-arm studies, or interrupted time series. IV: Case-series evidence.				