Risk assessment and initial management of suicidal adolescents

Background
Adolescents at risk of suicide present a particularly difficult management challenge for all clinicians involved in their care. Adolescents have more suicidal thoughts and behaviours than adults. Management of adolescents at risk of suicide has specific challenges, which are different from those for suicidal adults.

Objective
To provide a review of the relevant clinical factors in the assessment of a suicidal adolescent. To provide the general practitioner with practical advice for the assessment of a suicidal adolescent, based on the international literature.

Discussion
This article summarises the demographic, clinical, family and environmental and psychological factors associated with adolescent suicide risk. Steps towards the management of suicidal adolescents are presented and include risk assessment and safety planning.

Keywords
suicide; adolescent; risk assessment; mental health

Suicide is rare in childhood but suicidal ideation and behaviours are very common in adolescence. In America, 11% of high school students surveyed had seriously considered suicide in the preceding 12 months, and over this same period 6% had attempted suicide on one or more occasions. An Australian study found the 1-month community prevalence of non-suicidal self-injurious behavior (NSSI) in adolescents aged 15–19 years to be 4% in females and 2.2% in males. Nearly all adolescents who are suicidal have had a mental illness, the most common being a depressive disorder. This paper reviews the immediate management of adolescents aged 13–18 years and attempts to integrate the evidence into clinical practice.
Risk factors for suicide

Risk factors for adolescent suicide have been identified in the literature and are summarised in Table 2.9–21 Some risk factors for suicide can be classified as being modifiable or non-modifiable. Non-modifiable risk factors are static and do not change over time (eg. male gender, past history of suicide attempt, family history of suicide attempt). Modifiable risk factors are dynamic and may be influenced by treatment (eg. suicidal ideation, current stressors and poor physical health).

Demographic risk factors

Adolescent males are 3–5 times more likely to commit suicide than females, whereas females are more likely than males to attempt suicide.10,11,22 Adolescents who are same-sex attracted may struggle to disclose their sexual identity, experience victimisation or have unsupportive responses from family and friends, which may explain the elevated risk of suicidal ideation and attempt in this population.20,21

Clinical risk factors

Mental illness is a strong predictor of suicide in adolescence.9,14,15 Most older adolescents who have died by suicide were previously diagnosed with an affective disorder (82%), most commonly major depressive disorder.15 However, other conditions, such as anxiety disorders, schizophrenia, conduct disorder and substance abuse, have also been associated with suicide11,18 and need to be considered. Adolescents with borderline personality traits or disorders have an increased risk of suicide; this is partially mediated by the adolescent's aggression and impulsivity.23 There have been a number of case reports of suicide and suicidal behaviour in patients with Asperger's disorder.24,25 Adolescents with Asperger's disorder are at risk when they are moving away from their parents and attempting to congregate with their peers, only to develop increased insight into their social impairments.26

GPs might particularly consider a diagnosis of mental illness in adolescents presenting with unexplained physical symptoms, prolonged lethargy, sleep disturbance, poor school performance or attendance or a perception by parents that the adolescent is ‘not quite right’. Past suicide attempts are a major risk factor for suicide; however, it has been estimated that the ratio of number of suicide attempts to suicide is 400:1 in teenage boys aged 15–19 years and 3,000:1 in girls of the same age.27 In addition, a family history of suicide increases the adolescent's risk of suicide.11,12 Sexual abuse is a significant risk factor that increases the risk of suicide.17 Cutajar et al reported that while the mean age at which sexual abuse occurs was 10 years, the mean age at which the person committed suicide was 31 years,17 pointing to a long-term association.

Insomnia is also a risk factor for suicide.28 It should be noted that antidepressant medications have been reported to be responsible for a small but significant increase, compared with placebo, in suicidal thoughts and behaviours in adolescents. The role of antidepressants in affecting adolescent suicidal ideation and behaviours is outside the scope of this paper and is discussed elsewhere.29

Personality factors and psychological constructs have been associated with suicide risk. For some adolescents, attempts at suicide may be more impulsive and use less lethal means (eg. drug overdose), compared with adults who attempt suicide,30 contributing to the lower risk of death.

Family and environmental factors

A very important part of any suicide risk assessment is to inquire about the adolescent's access to lethal means to suicide. Removal of lethal means has been shown to reduce suicides31 and, as such, it is very important to instruct parents to store medications and sharp knives in locked areas. This is a key part of the safety plan (Figure 1). A number of family and environmental risk factors have been described. These factors include problems at school, poor communication between adolescents and parents, and worrisome life events.12 Where the adolescent believes that their parents are controlling and uncaring, this belief has been associated with increased risk of suicidal ideation.19

Table 1. Suicidal and non-suicidal terms and their definitions9,6

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
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<tr>
<td><strong>Suicidal ideation</strong></td>
<td>Passive thoughts about wanting to be dead or active thoughts about killing oneself, not accompanied by preparatory behaviour.</td>
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<tr>
<td><strong>Non-suicidal self-injurious behaviour</strong></td>
<td>Self-injurious behaviour associated with no intent to die. The behaviour is purely for non-suicidal reasons, either to relieve distress (often referred to as self-mutilation, eg. superficial cuts or scratches, hitting/banging or burns) or to effect change in others or the environment.</td>
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<td><strong>Suicidal plans</strong></td>
<td>Thoughts related to designing and engaging in the act of suicide.</td>
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<tr>
<td><strong>Preparatory acts</strong></td>
<td>Acts or preparation towards an imminent suicide attempt. This includes anything beyond a verbalisation or thought, such as assembling a specific method (eg. buying pills, purchasing a rope) or preparing for one's death by suicide (eg. giving things away, writing a suicide note).</td>
</tr>
<tr>
<td><strong>Suicide attempt</strong></td>
<td>A potentially self-injurious act, associated with at least some intent to die as a result of the act. An individual may admit to attempting suicide or, if denied, suicidal intent may be inferred from the behaviour or circumstance (eg. jumping from a high place, drug overdose) where no other intent is likely. A suicide attempt may or may not result in actual injury.</td>
</tr>
<tr>
<td><strong>Suicidal behaviour</strong></td>
<td>Behaviour that is self-directed and deliberately results in injury or the potential to injure oneself. There is evidence, whether implicit or explicit, of suicidal intent.</td>
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<tr>
<td><strong>Suicide</strong></td>
<td>Death caused by self-injurious behaviour with any intent to die as a result of the behaviour.</td>
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TABLE 2. A SUMMARY OF RISK FACTORS FOR SUICIDE BY ADOLESCENTS

<table>
<thead>
<tr>
<th>Demographic</th>
<th>Clinical</th>
<th>Family and environment</th>
<th>Mental state</th>
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<tbody>
<tr>
<td>Male</td>
<td>Psychiatric diagnosis</td>
<td>Life stresses, particularly unemployment and legal and school problems</td>
<td></td>
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<tr>
<td>Older adolescence (versus younger)</td>
<td>Recent discharge from psychiatric hospital</td>
<td>Access to lethal means</td>
<td></td>
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<tr>
<td>Non-heterosexual orientation</td>
<td>Past suicide attempt</td>
<td>Lack of social supports</td>
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<tr>
<td></td>
<td>Family history of suicide</td>
<td>Contagion – exposure to others demonstrating suicidal behaviour (imitation, coping strategy)</td>
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<tr>
<td></td>
<td>Child sexual abuse/rape</td>
<td>Non-intact families (eg. divorce)</td>
<td></td>
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<tr>
<td></td>
<td>Childhood history of trauma</td>
<td>Parental mental illness</td>
<td></td>
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<tr>
<td></td>
<td>Severe insomnia</td>
<td>Impaired relationship with parents</td>
<td></td>
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<tr>
<td></td>
<td>Poor physical health with functional impairment (eg. epilepsy)</td>
<td>Poor communication with father</td>
<td></td>
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<tr>
<td></td>
<td>Personality traits (eg. neuroticism, perfectionism)</td>
<td>Perceived excessive control and low care by parents</td>
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<tr>
<td></td>
<td>Low self-esteem</td>
<td>Indigenous heritage</td>
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<td></td>
<td>Poor treatment compliance</td>
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Mental state risk factors

Patients who have suicidal ideation are at higher risk of suicide.15 Risks for suicide on mental state include anxiety, agitation, worthlessness, suicidal ideation, homicidal ideation and hopelessness.18,28

The immediate management of suicidal adolescents

The GP needs to form a view as to whether the adolescent has no, low, medium or high risk on the basis of the number of risk factors and their severity (Table 2) as well as the presence of protective factors (eg. religious beliefs, connection to the school and social supports).

Open-ended questions to encourage disclosure of suicidal ideation may include: ‘Do you ever feel like giving up?’ ‘Do your symptoms/things ever become too much to cope with?’, ‘Do you ever feel hopeless about your situation?’. These questions could be followed by more closed questions: ‘Do you ever think about going to sleep and not waking up?’ or ‘Do you think that you would be better off if you weren’t alive?’. It should be noted that asking an adolescent if they have suicidal ideation does not make them suicidal; rather, inquiry about suicidal thinking is likely to lead the adolescent to feel they are being listened to and that they are not alone.10

There are standardised suicide assessment inventories (eg. the Columbia-Suicide Severity Rating Scale [C-SSRS],32 which is freely available online) but require training and may not be easily administered in a general practice environment. The GP should be mindful that the risk of suicide is likely to fluctuate in the short term and that the best way to address this is through regular review and assessment of risk. If the level of risk is determined to be moderate or high, the GP is obliged to implement a management plan to address the risk or refer to a psychologist/psychiatrist specialising in adolescent mental health, or to a Child and Adolescent public mental health service, for urgent assessment. For example, an adolescent with a current suicidal plan and intent, a past history of abuse, recent break-up with girlfriend or boyfriend and diagnosis of bipolar disorder that is untreated would be considered at high risk and would probably require an inpatient admission.

We propose 10 tasks for the immediate management of an adolescent at moderate-to-high risk of suicide (Table 3). It is not necessary for each of these tasks to be undertaken by
the same clinician. These tasks can be shared between the GP and the various professionals who may be involved in the adolescent’s care. The adolescent is likely to be safer if all the tasks are completed and the professionals communicate with one another about their findings and follow-up arrangements.

Psycho-education for both adolescents and their parents regarding the nature of their psychological diagnosis, its course and proposed treatment has been an important component of collaborative engagement. The development of a safety plan has been described as another component in the acute management of suicidal adolescents and has been evaluated as a component of comprehensive suicide prevention interventions. The plan can be constructed by any professional involved in the adolescent’s care, although this person should be familiar with writing safety plans and have assessed the adolescent for suicide risk factors. Writing the plan should be a collaborative process involving the adolescent and their parents and including individual triggers and coping strategies. The safety plan is tailored to each young person’s needs, strengths and supports; however, all safety plans have six key components:

1. identifying signs that the person is deteriorating
2. creating a list of personalised internal coping strategies
3. involving friends and family in distracting the adolescent from suicidal ideation
4. involving the family in problem solving in a crisis
5. contacting mental health clinicians
6. restricting the adolescent’s access to lethal means.

The parents have key roles in monitoring the adolescent’s safety between professional visits, contacting health professionals or bringing the adolescent for review if necessary and locking away medications and knives at home. Guns or other weapons should be given to the police for safekeeping.

Copies of the safety plan should be given to the adolescent and parents, and permission sought for it to be shared with other professionals involved in the adolescent’s care.

The safety plan is an adaptable document that can be updated over time, as negotiated with the adolescent, depending on what is and is not working. The GP needs to consider whether they are equipped to construct a rudimentary safety plan at the first appointment or need to refer to an external professional to assess the young person and complete this task. ‘Safety Net’, a smartphone application for safety planning, is now available on the iTunes store and may be very useful for some adolescents. An example of a safety plan for the case study patient is shown in the Figure 1.

Jane is 17 years of age and has a depressive illness. She has fluctuating mood symptoms and suicidal thoughts. The urge to follow through with these thoughts generally lasts for 1–2 hours, but then subsides. Jane has reported an awareness that the urge to harm herself will pass if she is able to use her safety plan.

**Warning signs (symptoms suggesting that Jane is deteriorating):**

- sleeping <7 hours per night
- losing weight
- not going to school
- having suicidal thoughts.

**Internal coping strategies (things that Jane can do to soothe herself):**

- Jane has agreed to make a list of reasons for living and can look at this list if she is struggling.
- Jane has also agreed to make a Hope box, which includes pictures of family holidays and her Year 11 formal. Jane can also look at these pictures if she is struggling.

**Distraction techniques:**

- Listen to music, play piano, guitar
- Watch family DVDs
- Have a bath
- Play with her dog, Savage
- Go for a walk

Jane can ask her mother for extra (prn) medication of diazepam 2 mg if she is very distressed and feels that she is not coping.

**Social supports that can help take Jane’s mind off problems:**

- Phone or text cousins
- Phone or text Julie (neighbour)

**Family and friends for crisis help:**

Jane has identified 5 people she can call if she is not able to cope or keep herself safe. Jane agrees to keep a fully charged mobile telephone and have credit on her phone.

The 5 people who agree to be called on as safety people are:

1. Mum __________________ mobile number __________________
2. Dad __________________ mobile number __________________
3. Jessie (friend) ______________ mobile number ______________
4. Kim (friend) ______________ mobile number ______________
5. Beverley (aunt) ___________ mobile number ___________

**Professionals and agencies:**

- Jane can call KIDS helpline 1800 55 1800.
- Jane’s mother will call Dr Jones if these strategies do not work and Jane is not coping. Dr Jones can be called during the day on 9123 4547 or after hours on 9234 6666, pager 2345.
- In a crisis, Jane’s mother should take her to the Emergency Department at St Elsewhere Medical Centre.

Figure 1. Safety plan for Jane Smith, 25 May
Safety plans are different from ‘no suicide contracts’ (NSC). An NSC is a written commitment by the patient to not engage in suicidal behaviour and is unlikely to have any merit if the GP has no pre-existing relationship with the adolescent. An NSC is not a legal document. It has been recommended that NSCs are not used in the management of suicidal patients as there is a danger that they may inappropriately reassure clinicians that their patients are safer than they actually are and they provide limited or no strategies for dealing with dysphoric feelings.

GPAs should either continue to see the patient or arrange for another professional (eg. child psychiatrist or psychologist) to monitor their suicidal risk until it diminishes. The frequency and duration of this monitoring will vary from patient to patient. Once risk has been determined, the GP needs to decide on the most appropriate course of action to reduce risk. Options may include an urgent referral to a crisis assessment team, or to the emergency department for a psychiatric inpatient admission or referral to a child psychiatrist or other mental health professional for ongoing psychopharmacological and/or psychotherapeutic treatment. Issues around continuity of care with a known GP need to be balanced against the need to access specialist mental health care.

**Key points**

- It is a myth that asking about suicidal ideation makes the person more suicidal; rather the evidence suggests the contrary.
- For any adolescent who has suicidal thoughts or has attempted suicide, the GP should inquire about other symptoms of a depressive disorder.
- Insomnia is a risk factor that the GP can address with behavioural and pharmacological interventions.
- For any adolescent who has a mental illness, the GP should consider conducting a risk assessment, inquiring about the known suicidal risk factors, to form a view as to whether the adolescent is at no, low, medium or high risk of suicide.
- The GP should always consider involving the adolescent’s parents; however, the adolescent may have a challenging relationship with their parents and this may affect the role of the parents in future consultations.
- A safety plan is considered an important part of the management plan.

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**Resources**


**References**