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# **PRACTICE POINTER**

# Assessment and management of self-harm and suicide risk in young people

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#### What you need to know

- Speak to young people with respect, compassion, and sympathy
- Do not solely use risk assessment scores, tools, or stratification to inform treatment
- Each young person requires a personalised assessment of unmet clinical needs and tailored treatment

A 16 year old girl visits her general practitioner (GP) with her mother and describes how she is being bullied at school and how she has felt more anxious as a result. The GP notices a cut on her left wrist.

A 23 year old man is brought into the emergency department by paramedics after taking an overdose of paracetamol at home a few hours earlier.

In both cases, the doctor wants to know how to adequately assess the self-harm episode and how best to help the young person.

Self-harm and suicide in young people are growing and serious public health concerns. Young people can present with self-harm or suicidal thoughts in all clinical contexts. However, the frontline settings of general practice and emergency care allow for early identification and intervention. Managing self-harm or suicidal thoughts in young people is a daily reality for many GPs and non-mental health clinicians. In this practice pointer, we outline how GPs and non-mental health clinicians can assess and manage young people aged 12-25 after self-harm or suicidal thoughts. Our approach is informed by the 2022 National Institute for Health and Care Excellence (NICE) guideline for managing self-harm.<sup>1</sup>

# How common is self-harm and suicide in young people?

The NICE definition of self-harm is intentional self-poisoning or injury irrespective of the apparent purpose.<sup>1</sup> This definition encompasses self-harm with or without suicidal intent and examples of self-harm include cutting, medication overdose, burning, or hair pulling.<sup>2</sup>

Self-harm is common among young people, with a pooled 17% lifetime prevalence of self-harm in adolescents aged 12-18.<sup>3</sup> Self-cutting is the most common (45%) type of self-harm, followed by head banging (31%), hitting (27%), and self-poisoning (20%).<sup>3</sup>

Rates of self-harm in boys and girls aged 10-24 recorded in general practice in the UK have been increasing since 2010, and in the early covid-19

pandemic (2020-2022) the incidence of self-harm was higher than expected in girls aged 13-16 specifically.<sup>4</sup> In a UK case-control study of young people aged 10-19, 85% presented to a GP in the year preceding self-harm, and the risk of self-harm rose with the frequency of clinical consultations in the previous year (odds ratio, OR 3.3, 95% confidence interval, CI 3.2 to 3.5 for one contact versus no contact and OR 9.3, 95% CI 9.0 to 9.6, for five or more contacts *v* no contact) which highlights the need for early identification and intervention in non-mental health settings.<sup>5</sup>

Self-harm is also strongly associated with suicide. According to the World Health Organization, suicide was the fourth leading cause of death in people aged 15-29 globally in 2019.<sup>6</sup> Rates of suicide in young people aged 15-24 in Australia, Canada, the UK, and the US have been rising over the past two decades and rises in suicide were found in countries with higher GDP per capita and income inequality.<sup>78</sup> Suicide can occur in clusters at any age but perhaps particularly in young people.9 Potential mechanisms include clustering of underlying risk factors or social transmission (through in-person contact or from any types of media). Suicide rates in low and middle income countries are highest among people aged 10-29.<sup>10</sup> In a prospective observational cohort study of young people aged 10-18 who presented to five emergency departments in England between 2000 and 2013, the increased risk of suicide in the year after a self-harm episode was 30-fold (standardised mortality rate, 31.0, 95% CI 15.5 to 61.9).<sup>11</sup> Young people from an online discussion forum described feelings of shame, influenced by previous poor experiences, when seeking help for self-harm from emergency departments, which highlights challenges in accessing urgent care.<sup>12</sup>

# What is the general approach to assessment?

Inquire about self-harm and thoughts of suicide in young people in all instances when there is a clinical concern (for example, a presenting psychosocial problem, or when reviewing a chronic condition, or when the young person seeks help for mental health symptoms). Box 1 lists factors that increase the risk of suicide in young people.

Box 1: Factors increasing the risk of suicide among young people<sup>13</sup>

- Current mental illness and distress
- History of self-harm
- Use of alcohol or illicit drugs
  Parental separation, death, or mental illness

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- History of abuse
- Chronic physical health conditions
- Difficulties in family relationships
- Family history of suicide
- Stress at home, work, or in place of education
- Identifying as LGBTQ+

If self-harm or suicidal thoughts are identified, conduct a full clinical assessment of needs. Assessment should be done with sympathy, respect, and compassion. Where possible and respecting confidentiality, seek collateral information from the young person's family, friends, or other professionals to add to the patient's account. If the young person refuses the sharing of information with others and holds mental capacity, the clinician may still want to seek information or views from those close to the young person where appropriate.

Assessing a young person after self-harm or suicidal thoughts is a dynamic, continuous, and iterative process, where new factors or circumstances may occur in the young person's life that can elevate or reduce the risk of future self-harm or suicide.<sup>14</sup> Clear documentation in patient records outlining clinical reasoning and rationale for management can facilitate informational continuity if the person re-presents.<sup>14</sup> GPs and non-mental health clinicians should feel competent and confident to speak to a young person after self-harm and know how to seek a specialist assessment when needed.

# How should young people be assessed?

In general practice assessment might occur across appointments with a GP or family doctor, facilitating a therapeutic alliance, focusing on the young person's circumstances, identifying modifiable risk factors (such as untreated mental illness or substance misuse, or exposure to self-harm images), and working together with the young person and their family or support network to address unmet needs.<sup>1</sup> Young people presenting to general hospital settings should be referred to age appropriate mental health liaison teams for assessment.<sup>1</sup>

Guidance from India outlines key areas for clinicians to cover in a comprehensive assessment of suicidality in young people. This includes risk factors, level of functioning, identifying strengths and supports, clarifying goals, and determining the type of future care.<sup>15</sup>

Inquire about clinical factors that may raise suicide risk. In emergency departments and primary care, screening instruments such as Patient Health Questionnaire-9 can help support the identification of concurrent low mood but they are not a substitute for a full clinical assessment of needs.<sup>16</sup> Where depression is identified discuss treatment options with young people and be guided by clinical guidance for depression.<sup>17</sup> On examination, physical signs such as scars, skin lacerations, wounds, or burns may be evident. Self-poisoning can often present with no physical symptoms, therefore conduct a full physical examination (which may be normal), with a particular focus on the cardiovascular and gastrointestinal systems. Practical tips and features to consider in a mental state examination are listed in box 2. When self-poisoning is suspected, refer to the emergency department for blood tests and, if needed, initial treatment.

# Box 2: Practical tips for clinical assessment in young people<sup>18 19</sup> General principles

• Listen attentively and be non-judgmental

- Aim to develop rapport
- Communicate sympathetically and compassionately
- Generate a trusting relationship
- Demonstrate acceptance of the patient
- Ask about sharing information with family and friends early on

#### Assess mental state

- Observe facial expression, eye contact, rate, volume, and tone of speech, abnormal movements, or emotional distress
- Mood and feelings of hopelessness
- Where suspected—delusions and hallucinations
- Self-harm and suicidal thoughts: ideas, intent, and plans

#### Associated factors to consider

- Academic pressures
- Bullying
- Bereavement
- Suicide or self-harm in family or friends
- Physical health problem
- Child abuse
- Family problems
- Relationship difficulties
- Eating problems
- Alcohol and substance misuse
- Hopelessness
- Mental health disorders
- Suicide related internet and social media use
- Recent self-harm or suicidal thoughts

# **Protective factors**

- Support from family and friends
- Religion
- Education
- Employment

#### Narrative summary

Write a summary, bringing together components of the assessment for a coherent narrative, and compose a concluding statement focused on management (box 3). The treatment plan should target identified clinical needs and be developed with the young person. If uncertain, discuss with a specialist mental health professional.

#### Box 3: Example concluding statement by a GP

Recent self-harm by cutting following a disagreement with sister. Low mood for three weeks but no current suicidal thoughts, plans, or intent. Has support from friends. Plan: may have concurrent depression—encourage exercise, good diet, signpost to self-care information. Offered talking therapies referral but at present not keen. Discussed mitigation and help-seeking if thoughts of self-harm recur. For follow-up review in <sup>10</sup> days. Emergency contact details given if self-harm or suicidal intent.

# What is the role of risk assessment tools and scales?

The NICE guideline recommends that risk assessment tools or scales should not be used to predict future suicide or repeat self-harm or used for determining treatment decisions, particularly in isolation. This recommendation is based on a meta-analysis of clinical instruments (such as the Beck Hopelessness Scale or Beck Suicidal Ideation Scale) aimed at predicting future suicidal behaviour which found only a 6% combined positive predictive value of these tools for future suicide.<sup>1 20</sup> NICE also recommends that risk should not be stratified into global categories of low, medium, or high.<sup>1</sup> A cohort study of patients presenting to emergency departments after self-harm across four centres in England found that most (67% and 83%) of deaths by suicide after six months of self-harm were categorised as "low risk" based on two risk scales, thus highlighting the additional challenge of false negative risk ratings generated by some tools.<sup>21</sup>

Use of these tools and scales by doctors, including in mental health services, remains common. Clinicians may find aspects of them helpful as an aide memoire, and the culture of using tools is embedded in clinical practice. Furthermore, tools may be regarded as an assessment shortcut or clinical shorthand in pressured services. However, these tools can provide clinicians with false reassurance, detract from the personal assessment of a young person, and are potentially harmful when young people may not receive the care they need.<sup>22</sup>

# When should a young person be referred for specialist care?

Consider referring a young person for an urgent specialist mental health assessment (including a full psychosocial assessment), when the:

- Frequency or degree of self-harm or suicidal ideation is rising or persistent
- Clinician undertaking assessment is concerned
- Young person's level of distress is rising, high, or sustained
- Young person asks for specific support from mental health services
- Levels of distress or concern in family members or carers of young people are rising, high, or sustained despite help and support offered
- Assessment suggests evidence of an underlying mental disorder.

# Suicidal thoughts and plans

Inquire whether the young person is having or has experienced thoughts about ending their life and how transient, intrusive, and persistent these are. Thoughts of not wanting to be alive, especially those that are short lived, are common among the general population, and are of uncertain prognostic significance. Inquiring about thoughts and behaviours does not make a young person more likely to experience them in the future: a recent meta-analysis that included studies about young people found that asking about suicide or self-harm had no impact on future harmful outcomes.<sup>23</sup> In young people who disclose suicidal thoughts, ask sensitively whether they have made any plans about suicide. The usual single item response of yes/no is insufficient, and you may need to probe further to obtain a better picture.

Introducing these questions gently and incrementally (while perhaps also mentioning that these are common questions asked to all) may help make the young person feel more comfortable in replying openly. Example questions are "Have you ever had any thoughts about going to sleep and not waking up" and "Have thoughts ever come into your head about life not being worth living?" Further sensitive inquiry might explore thoughts and behaviours in more detail, for example, "Have you done anything to prepare for ending your life such as giving away a prized possession or writing a letter for your family?"  $^{\rm 24}$ 

Young people and clinicians may disagree about the degree of suicidal intent associated with a self-harm episode.<sup>2</sup> It is often difficult to identify the degree of suicidal intent before self-harm because of preceding distress before an episode, and because reported motivations and intent often change before, during, and after, an episode of self-harm. Imagery can be an element of suicidal thinking for many people.<sup>25</sup> Consider asking the young person if they imagine or picture any aspect of the thoughts they have expressed.

If active suicidal thoughts and/or plans are detected, explore, and identify any protective factors the young person has at the time: they can be encouraged to view these as strengths and areas of hope in the management plan.<sup>24</sup> Examples of protective factors include support from family and friends, religious faith, or education or employment commitments (box 2).

### Initial care after self-harm

Expert consensus from NICE guidance suggests that people who have self-harmed are most likely repeat self-harm within 48 to 72 hours.<sup>1</sup> Obtain an account of the factors leading up to the self-harm episode, the type, method (including location), and severity of self-harm, reasons for self-harm, and what happened subsequently. Discuss with the young person, and family if appropriate, the format and frequency of initial aftercare. When there are safety concerns, the young person should be seen again within 48 hours, if possible with the same clinician who did the initial assessment.<sup>1</sup>

# What is the role of safety plans in management?

NICE suggests considering safety plans for young people after self-harm. Elements include<sup>114</sup>:

- Recognising warning signs
- Identifying coping strategies
- Distraction by connecting with others
- Supporting by using social contacts
- Accessing professional contacts; and ensuring a safe environment.

High quality evidence from randomised controlled trials is lacking for the use of clinical effectiveness of safety plans, but plans are in widespread use because they are acknowledged as good practice and may lead to reducing repetition of self-harm (based on low quality evidence). Safety plans should be created collaboratively between young people and clinicians, with input from family members or carers when appropriate, and should be accessible to the person and to healthcare professionals who may be named as a source of support, such as the GP or mental health team. The plan should document the person's protective factors and requires regular review. Safety plans are dynamic documents and should be adapted as needs and circumstances change. Although non-specialists will not in general lead on developing a safety plan with a young person (this would occur more commonly in mental health services), they may be involved in reviewing it, amending it, and considering it in their management plans.

### Treatment

Evidence is lacking for the effectiveness of specific interventions for self-harm in young people.<sup>126</sup> Some evidence supports cognitive behavioural therapy-type psychological interventions, dialectical

behaviour therapy for adolescents, and mentalisation-based therapy, leading to reductions in self-harm repetition and frequency, however, these interventions tend to be delivered in specialist care settings, and the strength of evidence is not high.<sup>26 27</sup>

GPs and non-mental health clinicians in non-specialist settings should apply general principles of good care: treating underlying mental or physical illness, safe prescribing considering the toxicity and lethality of medications, addressing social or educational needs, fully involving the young person and their family, referring for specialist input where appropriate, and personalising care. In young people with past episodes of self-poisoning, consider a medication review, and consider limiting quantities of medication and wider access to medicines at home.<sup>1</sup>

In low and middle income settings, the focus of treatment is likely to be different because of variability of demographic, clinical, and cultural presentations in young people—social care and public health interventions are at least as important as mental health ones, multilevel interventions (at population, community, and individual levels) might be more effective than those that are exclusively clinical, and digital interventions which improve access may have more of a role.<sup>28</sup>

#### **Education into practice**

- How do you assess risk of repeat self-harm and suicide in young people?
- When you last assessed a young person after self-harm or suicidal thoughts, how did you discuss their circumstances in a non-judgmental way?

#### How were patients involved in the creation of this article?

A young person with lived experience of seeking help from healthcare professionals for self-harm was involved in writing, reviewing, and editing this article and ensured the piece is appropriate and relevant to young people.

#### How was this article created?

We used data presented in the 2022 NICE guideline for self-harm (underpinned by systematic reviews), the 2021 Cochrane review of interventions for self-harm in children and adolescents, authors' knowledge of the literature, and a Google Scholar search using search terms "suicide," "self-harm," "risk assessment," and "young people."

Contributorship and the guarantor: FM conceived the article idea and is the guarantor. All authors wrote and critically reviewed the article and agreed to submit the article.

Competing interests: FM and NK were members of the NICE self-harm guideline development committee 2022. NK was topic expert for the guideline. NK is a member of the National Suicide Prevention Strategy Advisory Group, DHSC.

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- National Institute for Health and Care Excellence. Self-harm: assessment, management and preventing recurrence [NG225] 2022. https://www.nice.org.uk/guidance/ng225.
- 2 Kapur N, Cooper J, O'Connor RC, Hawton K. Non-suicidal self-injury v. attempted suicide: new diagnosis or false dichotomy? *Br J Psychiatry* 2013;202:-8. doi: 10.1192/bjp.bp.112.116111 pmid: 23637107
- 3 Gillies D, Christou MA, Dixon AC, etal. Prevalence and characteristics of self-harm in adolescents: meta-analyses of community-based studies 1990-2015. J Am Acad Child Adolesc Psychiatry 2018;57:-41. doi: 10.1016/j.jaac.2018.06.018 pmid: 30274648

- 4 Trafford AM, Carr MJ, Ashcroft DM, etal. Temporal trends in eating disorder and self-harm incidence rates among adolescents and young adults in the UK in the 2 years since onset of the COVID-19 pandemic: a population-based study. *Lancet Child Adolesc Health* 2023;7:-54. doi: 10.1016/S2352-4642(23)00126-8 pmid: 37352883
- 5 Cybulski L, Ashcroft DM, Carr MJ, etal. Risk factors for nonfatal self-harm and suicide among adolescents: two nested case-control studies conducted in the UK Clinical Practice Research Datalink. J Child Psychol Psychiatry 2022;63:-88. doi: 10.1111/jcpp.13552 pmid: 34862981
- 6 World Health Organization. Suicide. 2021. https://www.who.int/news-room/fact-sheets/detail/suicide#:~text=Suicide%20is%20the%20fourth%20leading.common%20methods%20of%20suicide%20globally.
- 7 Office for National Statistics. Suicides in England and Wales: 2021 registrations. 2022. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/suicidesintheunitedkingdom/2021registrations#main-points.
- 8 Padmanathan P, Bould H, Winstone L, Moran P, Gunnell D. Social media use, economic recession and income inequality in relation to trends in youth suicide in high-income countries: a time trends analysis. J Affect Disord 2020;275:-65. doi: 10.1016/j.jad.2020.05.057 pmid: 32658824
- 9 Hawton K, Hill NTM, Gould M, John A, Lascelles K, Robinson J. Clustering of suicides in children and adolescents. *Lancet Child Adolesc Health* 2020;4:-67. doi: 10.1016/S2352-4642(19)30335-9 pmid: 31606323
- 10 Knipe D, Padmanathan P, Newton-Howes G, Chan LF, Kapur N. Suicide and self-harm. *Lancet* 2022;399:-16. doi: 10.1016/S0140-6736(22)00173-8 pmid: 35512727
- Hawton K, Bale L, Brand F, etal. Mortality in children and adolescents following presentation to hospital after non-fatal self-harm in the Multicentre Study of Self-harm: a prospective observational cohort study. *Lancet Child Adolesc Health* 2020;4:-20. doi: 10.1016/S2352-4642(19)30373-6 pmid: 31926769
- 12 Owens C, Hansford L, Sharkey S, Ford T. Needs and fears of young people presenting at accident and emergency department following an act of self-harm: secondary analysis of qualitative data. *Br J Psychiatry* 2016;208:-91. doi: 10.1192/bjp.bp.113.141242 pmid: 26450583
- <sup>13</sup> Hawton K, Saunders KE, O'Connor RC. Self-harm and suicide in adolescents. *Lancet* 2012;379:-82. doi: 10.1016/S0140-6736(12)60322-5 pmid: 22726518
- 14 Hawton K, Lascelles K, Pitman A, Gilbert S, Silverman M. Assessment of suicide risk in mental health practice: shifting from prediction to therapeutic assessment, formulation, and risk management. *Lancet Psychiatry* 2022;9:-8. doi: 10.1016/S2215-0366(22)00232-2 pmid: 35952701
- <sup>15</sup> Shah H, Somaiya M, Chauhan N, Gautam A. Clinical practice guidelines for assessment and management of children and adolescents presenting with psychiatric emergencies. *Indian J Psychiatry* 2023;65:-74. doi: 10.4103/indianjpsychiatry.indianjpsychiatry\_494\_22 pmid: 37063627
- <sup>16</sup> Thombs BD, Markham S, Rice DB, Ziegelstein RC. Screening for depression and anxiety in general practice. *BMJ* 2023;382:. doi: 10.1136/bmj.p1615 pmid: 37460129
- 17 National Institute for Health and Care Excellence. Depression in adults: treatment and management. Depression in adults: treatment and management. NICE guideline NG222. https://www.nice.org.uk/guidance/ng222/chapter/recommendations#depression
- Morriss R, Kapur N, Byng R. Assessing risk of suicide or self harm in adults. *BMJ* 2013;347:. doi: 10.1136/bmj.f4572 pmid: 23886963
- 19 Rodway C, Tham SG, Ibrahim S, etal. Suicide in children and young people in England: a consecutive case series. *Lancet Psychiatry* 2016;3:-9. doi: 10.1016/S2215-0366(16)30094-3 pmid: 27236279
- 20 Carter G, Milner A, McGill K, Pirkis J, Kapur N, Spittal MJ. Predicting suicidal behaviours using clinical instruments: systematic review and meta-analysis of positive predictive values for risk scales. *Br J Psychiatry* 2017;210:-95. doi: 10.1192/bjp.bp.116.182717 pmid: 28302700
- 21 Steeg S, Quinlivan L, Nowland R, etal. Accuracy of risk scales for predicting repeat self-harm and suicide: a multicentre, population-level cohort study using routine clinical data. *BMC Psychiatry* 2018;18.. doi: 10.1186/s12888-018-1693-z pmid: 29699523
- 22 Graney J, Hunt IM, Quinlivan L, etal. Suicide risk assessment in UK mental health services: a national mixed-methods study. *Lancet Psychiatry* 2020;7:-53. doi: 10.1016/S2215-0366(20)30381-3 pmid: 33189221
- Polihronis C, Cloutier P, Kaur J, Skinner R, Cappelli M. What's the harm in asking? A systematic review and meta-analysis on the risks of asking about suicide-related behaviors and self-harm with quality appraisal. *Arch Suicide Res* 2022;26:-47. doi: 10.1080/13811118.2020.1793857 pmid: 32715986
- 24 Sinclair L, Leach R. Exploring thoughts of suicide. BMJ 2017;356.. doi: 10.1136/bmj.j1128 pmid: 28360192
- <sup>25</sup> House A, Kapur N, Knipe D. Thinking about suicidal thinking. *Lancet Psychiatry* 2020;7:-1000. doi: 10.1016/S2215-0366(20)30263-7 pmid: 33069321
- 26 Witt KG, Hetrick SE, Rajaram G, etal. Interventions for self-harm in children and adolescents. Cochrane Database Syst Rev 2021;3:CD013667.pmid: 33677832
- 27 Witt KG, Hetrick SE, Rajaram G, etal. Psychosocial interventions for self-harm in adults. Cochrane Database Syst Rev 2021;4:CD013668.pmid: 33884617
- Renaud J, MacNeil SL, Vijayakumar L, etal. Suicidal ideation and behavior in youth in low- and middle-income countries: A brief review of risk factors and implications for prevention. *Front Psychiatry* 2022;13:1044354. doi: 10.3389/fpsyt.2022.1044354 pmid: 36561636