Suicidal ideation and behavior in children and adolescents: Evaluation and management

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Literature review current through: **Oct 2023.**
This topic last updated: **Feb 10, 2023.**

INTRODUCTION

Many adolescents think about suicide and attempt to kill themselves [1]. In 2011, 13 percent of adolescents in the United States planned a suicide attempt in the previous year and 8 percent attempted suicide [2]. Although completed suicide is rare, suicide was the second leading cause of death in 2014 among adolescents age 15 to 19 years [3].

The evaluation and management of children and adolescents with suicidal ideation and behavior are reviewed here. The epidemiology and risk factors for pediatric suicide are discussed separately. (See "Suicidal behavior in children and adolescents: Epidemiology and risk factors".)

PREVENTION

It is impossible to accurately predict suicide for individual patients [4,5]. Nevertheless, clinicians can mitigate the risk of suicide by identifying at-risk children and adolescents and pursuing early treatment before suicidal behavior emerges.

Risk factors and warning signs — Risk factors for suicide include the following [4,6]:

- Mental disorders (eg, major depression, substance use disorders, or psychotic disorders)

- Previous suicide attempt
- Gay, lesbian, or bisexual orientation, or transgender or gender non-conforming identity (see "Lesbian, gay, bisexual, and other sexual minoritized youth: Epidemiology and health concerns", section on 'Mental health and self-harm')
- History of physical or sexual abuse
- Family history of suicidal behavior

Additional information about risk factors for adolescent suicide is discussed separately. (See "Suicidal behavior in children and adolescents: Epidemiology and risk factors", section on 'Risk factors'.)

The American Association of Suicidology developed a mnemonic ("is path warm?") to help identify key warning signs for suicide [7,8]:

- Ideation – Talking about or threatening to harm or kill oneself; looking for ways to kill oneself; talking or writing about death, dying, or suicide
- Substance abuse – Increased substance use
- Purposelessness
- Anxiety – Worry, fear, agitation, or changes in sleep pattern
- Trapped – Feeling like there is no way out of a bad situation
- Hopelessness
- Withdrawal from friends, family, and society
- Anger
- Recklessness
- Mood changes

Screening for suicidal ideation

Primary care — Different methods are available to screen for suicidal ideation in primary care [9]. We typically screen adolescents for suicidal ideation by directly asking about it (see 'Asking about suicidal ideation' below) in the context of screening for depression; this approach is consistent with practice guidelines from the American Academy of Pediatrics [4]. Alternatively, clinicians can use a self-report screening tool, such as the nine-item Patient Health Questionnaire (PHQ-9) modified for teens (table 1), which screens for depression and as such, includes one item that asks about suicidal ideation. Screening for depression is discussed separately. (See "Screening tests in children and adolescents", section on 'Depression and suicide risk screening'.)

However, there is no evidence that routine screening for suicidal ideation in adolescent primary care patients reduces suicide attempts or mortality. Systematic reviews for the United States Preventive Services Task Force (USPSTF) have concluded that the evidence is insufficient to determine the benefits of screening for suicide risk in the general population of United States adolescents who do not have existing mental disorders or past histories of suicide attempts [10,11]. However, there is evidence that certain screens for suicidal risk will indeed identify suicidal adolescents [9,12], but whether that identification translates into improved outcomes has yet to be tested or proven.

The USPSTF clinical practice guideline for screening for suicide risk, as well as other USPSTF guidelines, can be accessed through the USPSTF website.

Emergency department — For youth evaluated in the emergency department by non-mental health clinicians, a brief screening tool may have some value in identifying risk for suicidal behavior. The Ask Suicide-Screening Questions is a four-item instrument that clinicians can administer to screen for risk of suicide in patients who present to pediatric emergency departments with psychiatric or general medical complaints [12]. The four items are:

- In the past few weeks, have you wished you were dead?
- In the past few weeks, have you felt that you or your family would be better off if you were dead?
- In the past week, have you been having thoughts about killing yourself?
- Have you ever tried to kill yourself?

Answering yes to at least one question constitutes a positive screen that should trigger a more extensive evaluation of the patient's risk for suicide. (See 'Risk assessment of suicidal ideation' below.)

A cross-sectional study in patients aged 10 to 21 years who presented to pediatric emergency departments with psychiatric (n = 180) or general medical (n = 344) problems found that the Ask Suicide-Screening Questions had good psychometric properties [12]. Sensitivity was 97 percent and specificity 88 percent. In psychiatric patients, the positive and negative predictive values were 71 and 97 percent; in general medical patients, positive and negative predictive values were 39 and 100 percent. A limitation of the study was that it was cross-sectional rather than assessing true predictive ability.

A systematic review found that two other screening instruments for suicidal ideation or behavior in high risk adolescents performed poorly [10].

Asking about suicidal ideation — The basic means to identify youth at risk for suicide is to simply ask about risk factors, suicidal thoughts, and intent. The concern that talking or asking about suicide will provoke suicidal ideation or actions in a child or adolescent is not supported by evidence [4,13].

Clinicians should interview adolescents with their parents as well as separate from parents, because interviewing patients alone may facilitate a more open discussion about suicidal ideation and behavior [4]. However, confidentiality should not be promised since it cannot be maintained under these circumstances. (See "Confidentiality in adolescent health care", section on 'Suicidal ideation or attempt'.)

Demonstrating that one is comfortable discussing suicide is an important element of an effective inquiry. Toward this end, the questions that are posed should be short, to the point, and asked in a nonjudgmental manner in developmentally appropriate language [14]. Avoiding abrupt and intrusive questions may help establish rapport [4]. Questions about suicidal ideation are typically asked toward the end of questions about signs and symptoms of major depression (table 2). Sample questions about suicide include:

- Do you ever think about dying? How often?
- What do you think happens when you die?
- Have you ever wished you were dead?
- Do you ever think the world would be better off if you were dead? Do you think life would be easier for your family and friends if you were dead? Have you ever thought of what would have to happen for your life to end?
- Have you had thoughts about hurting yourself? Killing yourself?
- Have you ever tried to kill yourself?

If the child or adolescent begins talking about suicidal thoughts, the lines of communication must be kept open. This can be facilitated through active listening, patience, maintenance of a calm demeanor, and neither minimizing the patient's concerns nor reacting with disapproval. The natural tendency to be reassuring and optimistic must be inhibited. Attempts to talk the child or adolescent out of suicide should be avoided, as should discussions of whether suicide is right or wrong.

Risk assessment of suicidal ideation — Once a child or adolescent has disclosed suicidal ideation, prompt assessment of suicidal risk is in order. Assessing the risk for suicide in youth

with suicidal ideation includes evaluation of multiple elements (table 3A-B):

- Content and chronicity of the suicidal thoughts
- Existence and details of a suicide plan
- Access to the means described in the plan
- The level of intent (eg, "I'm really gonna do it")
- Stressors, emotional pain, behavioral regulation, and social support

Other factors to assess include substance abuse, functional impairment, and lack of developmental progress [4].

Risk assessment information should be obtained from the parents or guardians, as well as the child or adolescent [15]. Additional sources include medical records, school reports, therapists and behavioral staff, and other individuals who are close to the child or adolescent. Collateral information is necessary because the patient may have reason to provide inaccurate information (eg, to avoid hospitalization).

Risk for suicide should be considered high in patients who report active suicidal ideation (eg, "I want to kill myself") with a specific plan or intent and have access to lethal means. The clearer the intent, the higher the risk, particularly in the context of disinhibition (eg, impulsivity or intoxication) and access to lethal means.

Nevertheless, passive suicidal ideation (eg, "I wish I would get run over by a car") should not be ignored. Passive suicidal ideation can progress to active suicidal ideation with a plan (eg, running into traffic).

As part of the evaluation, clinicians should ask patients whether they can promise to maintain their safety and not harm themselves; clinicians should also discuss a safety plan that specifies how patients can cope with recurrent suicidal urges in the future (figure 1).The safety plan is a widely used therapeutic tool, but in addition, the extent to which the adolescent can commit to stay safe and use the safety plan provides additional information about the adolescent's risk for suicidal behavior.

Nevertheless, patients who agree to adhere to a safety plan may still be at high risk; this agreement does not protect patients or clinicians, and is not a substitute for thorough evaluation, sound clinical judgment, and meaningful therapeutic interaction [16,17], particularly with impulsive adolescents. Best clinical practice now avoids the terminology of no-suicide contracts ("contracting for safety"), in which patients commit to stay safe; rather, best practice focuses upon generating a safety plan. Relying solely upon no-suicide contracts in the absence

of a safety plan has not been shown to be efficacious, although in some cases these contracts may help foster a therapeutic alliance [16,18,19].

Referral/intervention — Although some pediatricians have the requisite training and experience to manage patients with suicidal ideation, most patients are referred to psychiatrists and other mental health clinicians if these specialists are available. In particular, patients at moderate to high risk (eg, active suicidal ideation with a plan, or any recent/current suicidal behavior) should be referred for a mental health evaluation [4]. Primary care clinicians who refer patients to specialists are encouraged to remain involved in management. Pediatricians can help educate patients and families about treatment and reinforce the need for adherence.

When children or adolescents are in an acute suicidal crisis due to thoughts of wanting to kill themselves, the focus of the intervention is to keep them safe until the suicidal state diminishes or abates. This usually involves working with the family or other supportive individuals who can address safety concerns (eg, remove access to means) and are willing to stay with the patient at all times.

Treatment options include hospitalization, medication for underlying psychiatric disorders such as major depression, more frequent psychological intervention, mobilizing supports, and access to crisis intervention services [20]. The level of intervention depends upon the level of suicide risk (see 'Risk assessment of suicidal ideation' above), available support, and the ability of patients to join with those who seek to keep them safe:

- Immediate psychiatric evaluation (through the emergency department or psychiatry crisis clinic) and/or hospitalization is indicated when there is an imminent risk of suicide (eg, an active plan or intent without solid support or psychiatric intervention already in place to maintain safety) [4,14,21-23].

- Prompt referral to a mental health professional who is readily available (eg, within a few days) is warranted if the risk is not imminent.

The confidentiality of adolescents who are at risk to harm themselves must be breached in deference to patient safety; safety trumps confidentiality [4].

EMERGENCY EVALUATION OF SUICIDAL BEHAVIOR

Children and adolescents with suicidal behavior are typically evaluated in an emergency department. Medical stabilization is the first priority. The manner in which patients with suicidal behavior and their families are treated by the emergency department staff may affect

adherence with follow-up care [24]. Emergency department clinicians should stress the importance of treatment [15,25]. (See 'Management' below.)

Children and adolescents with suicidal behavior should have one-to-one attention until the seriousness of their intent is evaluated by the appropriate clinician. Potentially harmful medical supplies and equipment should be removed from the examination room where patients are evaluated [14,25]. To discourage elopement, hospital gowns should be provided to patients and their clothing and belongings should be stored separately [25,26].

Restraints should be used only if the patient is actively seeking ways to harm self or others and does not respond to verbal redirection (the proper use of restraints should be part of the educational curriculum for emergency department clinicians) [25,27]. Aggression or behavioral dyscontrol that does not respond to verbal interventions can be managed with pharmacotherapy, bearing in mind potential side effects [25]. Additional information about restraints and chemical sedation is discussed in a separate topic on the emergency management of acutely agitated or violent adults; drug doses and other aspects may not apply to pediatric patients. (See "Assessment and emergency management of the acutely agitated or violent adult".)

Caring for children and adolescents with suicidal behavior requires careful deliberation and planning for emergency department staff. Emergency departments may need to review their care system and modify their physical structure to provide a safe and contained environment for these patients [28]. Potential areas of modification include more mental health training, better access to mental health records, the development of crisis plans for adolescents at risk, and provision of additional staff (eg, security guards and other personnel who play a role in observation of at-risk patients).

History and physical examination — The important aspects of the history that should be included in evaluation of children or adolescents with suicidal behavior are discussed in the psychiatric evaluation. (See 'Psychiatric evaluation' below.)

The physical examination should be performed with attention to vital signs, level of consciousness and orientation, and manifestations of toxidromes [26]. In addition, clinicians should look for signs of recent or remote suicide attempts (eg, scars from cutting or bruises from hanging), physical or sexual abuse (eg, characteristic bruising patterns or genital trauma) (table 4), substance abuse (eg, track marks from intravenous drug use, or nosebleeds or perioral blisters from inhalant use), and general medical disease (eg, thyroid disease) [26]. (See "Approach to the child with occult toxic exposure" and "Physical child abuse: Recognition" and "Evaluation of sexual abuse in children and adolescents".)

Laboratory evaluation — The laboratory evaluation of the child or adolescent with suicidal behavior should be individualized according to the circumstances of the ideation or attempt and the clinical risk assessment for concerns of illicit drug use and confounding medical problems, such as pregnancy and presence of sexually transmitted infections. Commonly performed screening laboratory tests, which are generally required by hospitals before they accept patients for admission, include complete blood count, serum chemistry panels, urinalysis, thyroid stimulating hormone, human chorionic gonadotropin (pregnancy) in girls, and urine toxicology screen for drugs of abuse, aspirin, and acetaminophen [29].

Psychiatric evaluation — The psychiatric evaluation is conducted after the patient is medically stable. The goals of the psychiatric evaluation include [15]:

- Determining the risk of subsequent suicide attempt or suicide completion
- Identifying any predisposing and precipitating factors that can be treated or modified
- Recommending the level of care (ie, inpatient, partial hospital, or outpatient care)

The psychiatric assessment should be performed by clinicians with specialized training and experience in the psychiatric problems of children and adolescents. In some situations (eg, if a clinician with such training is not available), it may be necessary for general medical emergency department clinicians to perform the initial evaluation to determine whether the patient should be transferred to another facility for a formal psychiatric evaluation. The information used in the evaluation should be gathered from several sources, including the child or adolescent, parents or guardians, previous psychiatric evaluation or assessments, school reports, and any other individuals who are close to the child [15]. This is because the child or adolescent may minimize what occurred or have reason to provide inaccurate information (eg, to avoid hospitalization). We suggest interviewing patients and caregivers both separately and together [25].

Suicidal ideation, suicide plan, and intent must be addressed when evaluating the seriousness of suicidality and the risk for future attempts or completion. These areas are discussed in detail elsewhere in this topic (see 'Risk assessment of suicidal ideation' above). Information regarding underlying psychiatric or medical diagnoses and the inciting event also is important when assessing suicide risk [4,15]. The mnemonic "MALPRACTICE" (table 5) can help to ensure that these areas are addressed [22].

Clinicians should not equate the lethality of suicide attempts with suicidal intent [30]. Because children may not be able to accurately assess lethality, suicide risk assessment in children should be based upon the child's perception of lethality rather than the objective lethality of the suicidal act [4,14,30,31].

Following a suicide attempt, the absence of current suicidal ideation can be misleading if none of the factors that precipitated the attempt have changed or the patient cannot identify reasons for the attempt [4].

In addition to the history, the psychiatric evaluation includes a mental status examination. Specific elements include [32]:

- Appearance
- Attitude
- Behavior
- Motor functioning
- Attention
- Concentration
- Orientation
- Memory
- Affect
- Speech
- Language
- Suicidal and homicidal ideation, plan, and intent
- Thought content
- Thought process
- Perception
- Intellectual functioning
- Judgement
- Insight

MANAGEMENT

Medical stabilization — Medical stabilization of the patient who has attempted suicide is the first priority. The appropriate surgical service should be contacted for management of trauma. Patients whose attempt involved drug ingestion should undergo decontamination and receive antidotes as indicated. (See "Classification of trauma in children" and "Gastrointestinal decontamination of the poisoned patient" and "Management of acetaminophen (paracetamol) poisoning in children and adolescents" and "Selective serotonin reuptake inhibitor poisoning" and "Acute poisoning from atypical (non-SSRI) antidepressants, including serotonin modulators and serotonin-norepinephrine reuptake inhibitors (SNRIs)" and "Ethanol intoxication in children: Clinical features, evaluation, and management" and "Second-generation (atypical) antipsychotic medication poisoning".)

Disposition — The disposition of suicidal children or adolescents from the emergency department or medical care depends upon the immediate risk of suicide [14]. Patients should not be discharged from medical care until their account of events has been verified by their caregiver(s) [15,25].

Hospitalization — Psychiatric hospitalization (inpatient or partial) for evaluation and initiation of therapy is nearly always indicated for children and adolescents with suicidal behavior or immediate high risk of suicide [4,15]. Factors that can place patients at high risk of suicide include [4,25,26]:

- Suicide attempt with a highly lethal method (eg, firearm or hanging)
- Suicide attempt that included steps to avoid detection
- Ongoing suicidal ideation or disappointment that the suicide attempt was not successful
- Inability to openly and honestly discuss the suicide attempt and what precipitated it
- Inability to discuss safety planning
- Lack of alternatives for adequate monitoring and treatment
- Psychiatric disorders (eg, unipolar major depression, bipolar disorder, psychotic disorders, or substance use disorders) underlying suicidal ideation and behavior
- Agitation
- Impulsivity
- Severe hopelessness
- Poor social support

Although the standard of care is hospitalization, no high quality studies have demonstrated that it prevents subsequent suicide [15].

While awaiting hospitalization, patients should be kept in a room with all sources of potential harm removed. Family may be present if the patient desires. A staff member should be assigned to provide constant observation. Transfer of the patient should take place by ambulance, and the paramedics must be aware of the suicide risk. Inpatient treatment should continue until the patient's safety has stabilized [15].

Involuntary hospitalization — Involuntary hospitalization may be necessary if the parents or legal guardian of the child are not present and/or do not agree with the clinician's plans for hospitalization [25]. The process for admitting patients who will not or cannot sign themselves into a hospital vary among countries and from state to state in the United States. Most states require clinicians to certify that the patient is a danger to self or others, or is at imminent risk to come to harm because of an inability to adequately care for oneself.

Patients who are admitted against their will, or the will of their guardians, maintain the autonomy to consent for treatment [22]. The only medications that can be administered without their consent, or the consent of their guardians, are those that are necessary for stabilization during a crisis. If daily medications are deemed necessary for treatment of underlying psychiatric disorders, clinicians will need to petition a court to order treatment.

Outpatient treatment — Outpatient therapy (eg, at a clinic or partial hospital) is usually the best option for lower risk individuals, such as patients who are medically stable, are glad to be alive, and do not have a specific plan and intent to kill themselves [26,33]. Outpatient therapy is contingent upon a safety plan (figure 1) that includes the following [15,22,23,25]:

- Involvement of the family to regularly monitor the patient until safety has further stabilized
- Restricting access to all lethal means of suicide, particularly firearms and medications
- Identifying and avoiding triggers for relapse of suicidal ideation and warning signs
- Educating patients and caregivers about the disinhibiting effects of alcohol and other drugs
- Specifying coping strategies and healthy activities to manage or distract oneself from suicidal thoughts
- Securing mental health follow-up within 48 hours to address the acute factors that precipitated suicidal ideation
- Instructing family members to return to the emergency department if patients decompensate, and to summon the police if patients refuse

Intensive home therapy — Intensive home therapy may possibly be an option for some patients who need crisis stabilization [25,33].

Psychotherapy — Psychotherapy can reduce intentional self-harm in adolescents. However, no head-to-head trials have compared different types of psychotherapy for preventing suicidal behavior. In addition, many studies have administered a form of psychotherapy that utilizes techniques from multiple types of psychotherapy.

Evidence supporting the use of psychotherapy to treat youth with suicidal ideation and behavior includes a systematic review that compared psychotherapy with usual care in adolescents (n >2000) who self-harmed at least once [34]. The active treatments included many types of psychotherapy (often combined with usual care), and self-harm ranged from nonsuicidal self-injury to suicide attempts. A pooled analysis found that subsequent self-harm occurred in fewer patients who received psychotherapy than usual care alone (28 versus 33 percent). However, heterogeneity across studies was high. Therapies with the largest clinical effect included cognitive-behavioral therapy, dialectical behavioral therapy, and mentalization based therapy. In addition, reduction of self-harm was observed in trials with treatment that lasted more than one session, and in those with a large family component, but not in trials with a small family component.

By contrast, another systematic review identified 11 randomized trials that compared psychosocial therapies with control conditions in adolescents with at least one episode of self-harm (n >1000), and concluded that the paucity of evidence prevented firm conclusions about the efficacy of psychotherapy in reducing self-harm [35]. However, the review did not perform a meta-analysis that included all of the studies.

General principles — We suggest the following general principles for managing suicidal children and adolescents with psychotherapy, based upon a review of randomized trials [36]:

- Address family interactions or increase nonfamilial support
- Provide more treatment sessions (eg, 10 or more)
- Target alcohol and substance abuse when clinically indicated
- Discuss motivation for treatment
- When suicidal crises recur, initiate treatment quickly (eg, within one week) and at a greater intensity (eg, multiple treatment sessions per week)
- Coordinate treatment administered by multiple clinicians

Cognitive-behavioral therapy — An open-label randomized trial involving both acute and maintenance treatment compared usual care (eg, pharmacotherapy) plus cognitive-behavioral

therapy (CBT) with usual care alone in 36 adolescents with suicidal ideation or behavior and substance use disorders [37]. CBT was augmented with family therapy and motivational interviewing. At the assessment 18 months post-enrollment, usual care plus psychotherapy was superior to usual care alone with regard to suicide attempts (5 versus 35 percent), hospitalization (16 versus 53 percent), and arrest by legal authorities (5 versus 41 percent). Additional information about CBT for children and adolescents is discussed separately in the context of pediatric unipolar depression (See "Pediatric unipolar depression: Psychotherapy", section on 'Cognitive-behavioral therapy'.).

Dialectical behavior therapy — Dialectical behavior therapy can reduce adolescent self-harm. A 19-week, open-label randomized trial compared dialectical behavior therapy with usual care in adolescent outpatients (n = 77) with repetitive self-harm [38,39]. Dialectical behavior therapy included weekly sessions of individual therapy, weekly multifamily group sessions addressing skill deficits, and family therapy sessions as indicated. Usual care included at least one weekly individual therapy session (eg, psychodynamically-oriented therapy or CBT). Pharmacotherapy was allowed in both groups. The mean number of self-harm episodes (both nonsuicidal self-harm and suicide attempts) was less in patients treated with dialectical behavior therapy than usual care (9 versus 23 episodes). Posttreatment, a prospective one-year follow-up assessment found that the benefit of dialectical behavior therapy persisted, such that the average number of self-harm episodes was less in the group that received dialectical behavior therapy than usual care (6 versus 15) [39]. However, the number of treatment sessions was greater with dialectical behavior therapy, and the therapists administering dialectical behavior therapy required extensive training and supervision.

Family therapy — Open-label randomized trials indicate that family therapy (often combined with other treatment) can reduce adolescent suicidal ideation and behavior. As an example:

- A four-week trial compared outpatient usual care (eg, supportive psychotherapy and/or pharmacotherapy) plus family therapy with usual care alone in 48 adolescents with unipolar major depression who had at least one episode of self-injurious behavior (eg, cutting or overdosing), or had verbalized thoughts or threats of suicide [40]. Family therapy (four sessions, each lasting two hours) was provided in a single family format to only the parents, and focused upon education about self-injurious behavior and adolescent development, and strategies to manage stress and family conflicts and promote adolescent self-esteem and family harmony. Reduction of suicidal ideation and behavior and other psychiatric symptoms was greater in patients whose parents received family therapy, and the benefits persisted at the six-month follow-up.

- A 12-week trial compared attachment-based family therapy (average of 10 sessions) to usual clinical management (average of 3 sessions) in 66 mostly poor and minority adolescents with suicidal ideation [41]. Remission of suicidal ideation occurred in more patients treated with family therapy than usual care (87 versus 52 percent), and the benefits persisted at follow-up assessments 12 weeks posttreatment.

Group psychotherapy — Group psychotherapy does not appear to be efficacious for reducing self-harm in adolescents. As an example, a meta-analysis of three randomized trials compared group psychotherapy (six weekly sessions and subsequent booster sessions) with usual care in 490 adolescents with multiple episodes of self-harm [35]. Group psychotherapy in all three trials was administered according to the same treatment manual and included elements of cognitive behavioral therapy and dialectical behavior therapy. At the 12-month assessment, repetition of self-harm in the two groups was comparable.

Mentalization based therapy — Mentalization based therapy appears to reduce adolescent self-harm. A one-year randomized trial compared mentalization based therapy with usual care (mental health services) in adolescents (n = 80) who presented with self-harm; allocation was concealed from patients and outcome assessors [42]. Mentalization based therapy is a form of psychodynamic psychotherapy that focuses upon impulsivity and affect regulation; treatment was administered in weekly individual sessions and monthly family therapy. Nearly all of the adolescents suffered from depressive syndromes and most also suffered from borderline personality disorder. Subsequent self-harm occurred in fewer adolescents who received mentalization based therapy than controls (43 versus 68 percent). In addition, reduction of depressive and borderline symptoms was greater with active treatment. Mentalization appeared to improve self-harm outcomes by improving the quality of attachment between adolescents and their parents, and by improving the ability to mentalize, that is, to conceptualize actions in terms of thoughts and feelings.

Pharmacotherapy — The emergent administration of antidepressants has no role in the acute management of the suicidal adolescent or child. However, many pediatric patients hospitalized for suicidal ideation or behavior are treated with pharmacotherapy for an underlying psychiatric disorder. As an example, selective serotonin reuptake inhibitors are often used for unipolar major depression, based upon efficacy and tolerability. All medications that are prescribed for the suicidal child must be monitored and any changes in behavior or side effects must be reported immediately [15]. Although there is some concern that antidepressants may increase the risk of suicidality in pediatric patients, this remains an area of significant controversy, and the consensus among most mental health specialists is that the benefits of antidepressant therapy outweigh the risks. (See "Pediatric unipolar depression and pharmacotherapy:

Choosing a medication" and "Pediatric bipolar disorder: Overview of choosing treatment" and "Effect of antidepressants on suicide risk in children and adolescents".)

SCHOOL BASED PREVENTION

Several randomized trials indicate that prevention programs that are administered in schools can reduce suicide attempts in students [43]. As an example, one open label, school based trial in adolescents (n >8000 analyzed) compared a program focused upon youth awareness with two other interventions, gatekeeper training and screening, as well as a control condition [44,45]. The youth awareness program trained students to recognize depression and suicidality in themselves and other students, and encouraged adaptive coping and help-seeking; the program included three hours of role play sessions, two hours of interactive lectures, and a 32-page booklet that students could take home. Gatekeeper training taught teachers to recognize suicidality in students. Screening of students was conducted by health professionals, who referred students at risk for suicide to clinical services. During follow-up lasting 12 months, fewer suicide attempts occurred in the youth awareness program than the control condition (0.7 versus 1.5 percent of adolescents). By contrast, the number of suicide attempts was comparable in the gatekeeper, screening, and control groups.

COMMUNITY BASED PREVENTION

Limited evidence suggests that short term community based interventions may temporarily reduce suicide attempts and mortality in youth. One such community program in the United States that is widely used to prevent youth suicide is the Garrett Lee Smith Memorial Suicide Prevention Program. This short-term program includes various approaches, such as gatekeeper training, which involves training individuals such as teachers and primary care physicians to identify youth at risk for suicide and to refer them for help. The program also includes education, screening, and crisis hotlines. A retrospective observational study examined suicide attempts in youth (age 16 to 23 years of age; n = approximately 57,000) living in communities that implemented the program, and youth (n = approximately 84,000) living in communities that did not implement the program (control group) [46]. The active intervention was associated with fewer suicide attempts in the first year after implementation of the program (5 fewer attempts per 1000 youth, for an estimated total of more than 79,000 attempts nationwide). However, the rate of suicide attempts in the two groups beyond one year was comparable. Similarly, suicide mortality in the active intervention group was reduced in the first year after implementing the program (1 less death per 100,000 youth, for an estimated total of 427 fewer

deaths nationwide); however, this benefit was not sustained beyond one year [47]. The findings suggest that suicide prevention requires continuous efforts over time.

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Depressive disorders".)

INFORMATION FOR PATIENTS

UpToDate offers two types of patient education materials, “The Basics” and “Beyond the Basics.” The Basics patient education pieces are written in plain language, at the 5th to 6th grade reading level, and they answer the four or five key questions a patient might have about a given condition. These articles are best for patients who want a general overview and who prefer short, easy-to-read materials. Beyond the Basics patient education pieces are longer, more sophisticated, and more detailed. These articles are written at the 10th to 12th grade reading level and are best for patients who want in-depth information and are comfortable with some medical jargon.

Here are the patient education articles that are relevant to this topic. We encourage you to print or e-mail these topics to your patients. (You can also locate patient education articles on a variety of subjects by searching on “patient info” and the keyword(s) of interest.)

- Beyond the Basics topics (see "Patient education: Depression in children and adolescents (Beyond the Basics)" and "Patient education: Depression treatment options for children and adolescents (Beyond the Basics)")

SUMMARY AND RECOMMENDATIONS

- **Risk factors for suicide** – Risk factors for suicide include mental disorders, previous suicide attempt, and family history of suicidal behavior. (See 'Risk factors and warning signs' above and "Suicidal behavior in children and adolescents: Epidemiology and risk factors", section on 'Risk factors'.)

- **Screening** – We typically screen adolescent primary care patients for suicidal ideation by directly asking about it in the context of screening for depression. Alternatively, clinicians can use the self-report, nine-item Patient Health Questionnaire (PHQ-9) modified for teens

(table 1), which screens for depression and includes one item that asks about suicidal ideation. For youth who present to pediatric emergency departments with psychiatric or general medical complaints, the Ask Suicide-Screening Questions is a four-item instrument that may have some value in identifying risk for suicidal behavior. (See 'Screening for suicidal ideation' above.)

- **Assessment**

  - **Suicidal ideation** – Assessing the risk of suicide in youth with suicidal ideation includes evaluation of multiple elements (table 3A-B), including the content and chronicity of the suicidal thoughts, existence and details of a suicide plan, access to the means described in the plan, and level of intent to commit suicide. Clinicians should also obtain collateral information from the parents. Risk for suicide should be considered high in patients who report active suicidal ideation (eg, "I want to kill myself") with a specific plan or intent and have access to lethal means. (See 'Risk assessment of suicidal ideation' above and 'Psychiatric evaluation' above.)

  - **Suicidal behavior** – Pediatric patients with suicidal behavior are typically evaluated in an emergency department. Medical stabilization is the first priority. Patients should be under constant observation until the seriousness of their intent is assessed, and potentially harmful medical supplies and equipment should be removed from the examination room where patients are evaluated. To discourage elopement, hospital gowns should be provided to patients and their clothing and belongings should be stored separately. (See 'Emergency evaluation of suicidal behavior' above.)

- **Disposition** – The disposition of suicidal children or adolescents from the emergency department or medical care depends upon the immediate risk of suicide. Patients should not be discharged from medical care until their account of events has been verified by their caregiver(s). Psychiatric hospitalization (inpatient or partial) for evaluation and initiation of therapy is nearly always indicated for children and adolescents with suicidal behavior or immediate high risk of suicide. Disposition to outpatient therapy is contingent upon a safety plan (figure 1). (See 'Disposition' above.)

- **Specific treatments**

  - **Psychotherapy** – For pediatric patients with suicidal behavior, we recommend psychotherapy rather than usual care (**Grade 1B**). Effective options include cognitive-behavioral therapy, dialectical behavior therapy, family therapy, and mentalization based therapy. (See 'Psychotherapy' above.)

General principles for managing suicidal children and adolescents with psychotherapy include the following:

- Address family interactions or increase nonfamilial support
- Provide a sufficient number of treatment sessions
- Target alcohol and substance abuse when clinically indicated
- Discuss motivation for treatment
- Initiate treatment quickly and at a greater intensity when suicidal crises recur
- Coordinate treatment administered by multiple clinicians.

(See 'General principles' above.)

- **Pharmacotherapy** – The emergent administration of antidepressants has no role in the acute management of the suicidal adolescent or child. However, many pediatric patients hospitalized for suicidal ideation or behavior are treated with pharmacotherapy for an underlying psychiatric disorder. (See 'Pharmacotherapy' above.)

- **Prevention programs** – Prevention programs that are administered in schools can reduce suicide attempts in students, and community-based interventions may temporarily reduce suicide attempts and mortality in youth. (See 'School based prevention' above and 'Community based prevention' above.)

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