Nonsuicidal self-injury in children and adolescents: Assessment

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INTRODUCTION

Nonsuicidal self-injury is the deliberate destruction of body tissue in the absence of any intent to die and occurs for purposes that are not socially sanctioned [1-3]. The behavior most commonly takes the form of skin-cutting, burning, and severe scratching [4,5]. Nonsuicidal self-injury occurs at high rates in adolescents and is associated with adverse clinical outcomes such as suicide attempts [6,7].

We conceptualize nonsuicidal self-injury as a distinct entity that differs qualitatively from suicidal behavior [2]. However, others argue that self-injury with and without suicidal intent represent different versions of the same behavior [8].

This topic discusses the assessment of nonsuicidal self-injury, and focuses primarily upon adolescents because nonsuicidal self-injury occurs far more often in this age group than in children [9]. In addition, the material is restricted to youth who do not have intellectual disabilities.

Separate topics discuss the epidemiology, pathogenesis, clinical features, and treatment of nonsuicidal self-injury, as well as the epidemiology, evaluation, and management of suicidal ideation and behavior in children and adolescents.

- (See "Nonsuicidal self-injury in children and adolescents: Epidemiology and risk factors".)

- (See "Nonsuicidal self-injury in children and adolescents: Pathogenesis".)
- (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria".)
- (See "Nonsuicidal self-injury in children and adolescents: General principles of treatment".)
- (See "Nonsuicidal self-injury in children and adolescents: Prevention and choosing treatment".)
- (See "Suicidal behavior in children and adolescents: Epidemiology and risk factors".)
- (See "Suicidal ideation and behavior in children and adolescents: Evaluation and management".)

TERMINOLOGY

Nonsuicidal self-injury is a behavior characterized by the deliberate destruction of body tissue in the absence of any intent to die and occurs for purposes that are not socially sanctioned [1-3]. By definition, nonsuicidal self-injury is distinguished from suicidal behavior; socially accepted practices such as tattoos, piercings, and religious rituals; accidental self-harm; and indirect self-injury through behaviors such as disordered eating or substance use disorders. Self-injurious behavior that is accompanied by **any** intent to die is classified as a suicide attempt, which is consistent with the practice of most clinicians and researchers [2,10,11]. This approach deliberately errs on the side of safety by categorizing ambivalent behaviors, which include any intention to die, as suicidal [2].

Additional information about the terminology of nonsuicidal self-injury is discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Terminology'.)

ASSESSMENT

Despite the high prevalence of nonsuicidal self-injury in adolescents, clinicians frequently do not assess patients for the behavior. In a survey of primary care clinicians (n = 262), less than 30 percent routinely asked about the behavior and nearly 50 percent felt unprepared to address nonsuicidal self-injury if it was reported [12].

General approach — Assessment of nonsuicidal and suicidal self-injury should occur as part of the initial clinical evaluation, which includes a history of psychiatric and other medical problems, mental status and physical examination, and focused laboratory tests. The unstructured clinical interview may be augmented with self-report tools or structured clinical interviews specific to

nonsuicidal self-injury. The initial assessment may need to occur over multiple sessions; between sessions, the intake assessment may be supplemented with self-monitoring of nonsuicidal self-injurious thoughts and behaviors.

When to suspect nonsuicidal self-injury — Nonsuicidal self-injury among youth may go undetected. As an example, one community study found that among adolescents with a lifetime history of nonsuicidal self-injury (n = 170), 42 percent never reported the behavior to someone else [13].

Suspicion of nonsuicidal self-injury is warranted in youth who present with [14-16]:

- Unexplained frequent injuries or “accidents” to the forearms, wrists, and hands (or other body parts), particularly injuries that lead to scarring on the nondominant arm
- Unusual or inappropriate dress:
  - Multiple bracelets, wristbands, or other jewelry that covers large areas of the forearm
  - Long sleeves in warmer temperatures
  - Not participating in activities that require less clothing, such as gym class or swimming
- Prior history of nonsuicidal self-injury

In addition, risk factors for nonsuicidal self-injury are discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Epidemiology and risk factors", section on 'Risk factors'.)

Physical assessment and care — Physical wounds should be assessed initially and treated as indicated (eg, surgical dressing) [1,17]. Although the injuries that occur in the context of nonsuicidal self-injury are typically superficial and do not require medical treatment, clinicians should nevertheless assess the wounds for signs of infection [14,15]. In addition, a tetanus vaccination may be indicated, depending upon the method of nonsuicidal self-injury. (See "Infectious complications of puncture wounds", section on 'Tetanus immunization'.)

Psychological assessment

Clinical interview — When assessing the presence of nonsuicidal self-injury, we suggest interviewing patients and caregivers both separately and together. Patients may be more likely to be forthcoming if their parents or guardians are not present during this part of the interview.

Clinicians should directly ask both the patient and parents/guardians about nonsuicidal self-injury, rather than waiting for them to spontaneously report it [10,18]. In addition, clinicians should distinguish between suicidal and nonsuicidal self-injury by asking about the intent to die

from the self-injurious behavior. Self-injurious behavior that is accompanied by **any** intent to die is classified as a suicide attempt. (See 'Terminology' above and 'Classifying self-injurious thoughts and behaviors' below.)

Clinicians can initially ask about nonsuicidal self-injury in the part of the interview that follows questions about the patient's overall level of distress (eg, depression and anxiety) and the use of adaptive and maladaptive coping strategies [2,19]. As an example, "Have you ever done anything to purposely hurt yourself, without wanting to die, such as cutting or burning yourself?" If patients acknowledge any self-injurious thoughts or behaviors, further questions should attempt to clarify whether the thoughts/behaviors are suicidal, nonsuicidal, or both. Additional information about evaluating youth with suicidal thoughts/behavior is discussed separately. (See "Suicidal ideation and behavior in children and adolescents: Evaluation and management".)

Clinicians should monitor their tone while discussing nonsuicidal self-injury to convey openness, empathy, and concern, and to avoid judgmental, critical, and angry reactions. Negative responses may exacerbate stigma and make adolescents reticent to report their nonsuicidal self-injury in the future and less likely to participate in treatment [15,19,20].

If patients endorse nonsuicidal self-injury, clinicians should ask about the age of onset of the behavior, past history (frequency of behavior and methods used), circumstances that lead to nonsuicidal self-injury, and the overall function(s) of the behavior. A detailed functional assessment, or chain analysis (ie, identifying the antecedents and consequences), of the behavior is recommended to inform treatment. Assessment should include [17,19-22]:

- Onset – When did the behavior start? What happened the first time you engaged in self-injury?
- Past and current frequency of the behavior – How frequently did self-injury occur over the past month, past year, and at the worst point in the individual's lifetime? How many injuries occur during a single episode of nonsuicidal self-injury (eg, how many cuts during one episode of nonsuicidal self-injury)? Has the frequency increased, decreased, or remained roughly the same over the past month or past year? (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Frequency of self-injury'.)
- Past and current methods of self-injury. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Methods used to self-injure'.)

- Medical severity/lethality of the injuries – Have you ever sought medical care for nonsuicidal self-injury? How do you typically take care of the wounds? (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Medical severity'.)

- Location of the injuries on the body. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Location on body'.)

- Context – Do you self-injure alone or around others? (See "Nonsuicidal self-injury in children and adolescents: Pathogenesis", section on 'Peer influences'.)

- Duration of an episode – When you engage in nonsuicidal self-injury, how long does it typically last? Episodes of nonsuicidal self-injury that last more than a few minutes may indicate greater levels of distress triggering the episode.

- Antecedents – What are the proximal antecedents (triggers) to engaging in nonsuicidal self-injury, both for past and current behavior? Antecedents include thoughts, feelings, and behaviors that directly precede or lead an individual to engage in the behavior. The most common antecedents are negative feelings or thoughts, such anger, anxiety, hopelessness, and sadness. These negative feelings and thoughts can be precipitated by several stressors or negative life events, such as interpersonal conflicts (peers, friends, and/or family), academic stressors, or traumatic memories. (See "Nonsuicidal self-injury in children and adolescents: Pathogenesis", section on 'Function of the behavior'.)

- Consequences of the behavior – Does it hurt when you injure yourself? How do you feel immediately after injuring yourself? How do you feel hours after injuring yourself? Adolescents may feel initial relief after engaging in the behavior but then guilt or shame may emerge later.

- Function of the behavior – Why do you injure yourself? How does self-injury help you? The behavior may serve multiple functions for the patient. The most common function of nonsuicidal self-injury is regulation of negative emotions (eg, anger, anxiety, and sadness). (See "Nonsuicidal self-injury in children and adolescents: Pathogenesis", section on 'Function of the behavior'.)

- Protective factors – Do you self-injure every time you have the urge to hurt yourself or are you sometimes able to resist the urge? If able to resist the urge, what helps you do so? If you have stopped engaging in self-injury for a period of time in the past (days, weeks, or months), how were you able to stop? What did you do instead?

- Impact on functioning – How is nonsuicidal self-injury problematic for you? Does it interfere with school or relationships (family or friends)? Does the behavior keep you from doing things you would like to do?

- Stopping the behavior – Have you tried to stop in the past? If so, how long were you able to stop? Assess reasons for wanting to stop nonsuicidal self-injury. (See protective factors two bullets above to assess strategies that may help an individual resist the urge to self-injure.) Do you want to stop now?

The evaluation should also assess [15,17]:

- Relationships (family, friends, and peers) and interpersonal stressors.

- Other psychiatric symptoms and disorders. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria".)

- Support – Has the patient disclosed the behavior to family, friends, teachers, or other supports? Is the patient already receiving treatment for nonsuicidal self-injury or a psychiatric disorder?

Classifying self-injurious thoughts and behaviors — For patients who present with self-injurious thoughts and/or behaviors, clinicians should attempt to correctly classify the thoughts and behaviors [2,10,23]:

- Suicidal – Self-injurious thoughts/behaviors that are accompanied by **any** intent to die are classified as suicidal, which is consistent with the practice of most clinicians and researchers, as well as recommendations from the United States Centers for Disease Control and Prevention. This approach deliberately errs on the side of safety by categorizing ambivalent thoughts/behaviors as suicidal. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Terminology'.)

  - Suicidal ideation – Thoughts of killing oneself or wanting to die.

    - Active suicidal ideation – Thoughts of taking action to kill oneself. As an example, “I want to kill myself” or “I am thinking about suicide.”

    - Passive suicidal ideation – The wish or hope that death will overtake oneself. As an example, “I would be better off dead” or “I hope I go to sleep and don’t wake up.”

- Suicide plan – Thoughts of a specific method for killing oneself, such as shooting oneself or overdosing. The plan may also include thinking of a place and time.

- Preparatory act – Action taken in preparation for carrying out a suicide plan and killing oneself, such as researching suicide methods, buying a gun, stockpiling pills, or preparations for after death, such as writing a suicide note or giving away personal items.

- Suicide attempt – Direct and deliberate self-harm that involves **any** intent to die.

- Nonsuicidal – Self-injurious thoughts/behaviors for which there is no evidence of any intent to die.

  - Nonsuicidal self-injury thoughts – Thoughts of engaging in nonsuicidal self-injury in the absence of any such behavior (eg, thoughts of cutting to punish oneself, but not with the intent to die).

  - Nonsuicidal self-injury – Self-injurious behavior characterized by intentional physical harm without intent to kill oneself; the behavior directly causes immediate damage of body tissue and is not socially sanctioned.

    Some patients may engage in self-injury or threaten to engage in self-injury to lead others to believe that the patient is suicidal, even when there is no intent to die. Given that this behavior is performed in the absence of any intent to die, it is considered nonsuicidal self-injury (social positive reinforcement). Although these behaviors are sometimes referred to as “suicidal threats” or “suicidal gestures,” these terms are increasingly viewed as pejorative and thus used less often. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Terminology'.)

Correct classification of self-injurious thoughts and behaviors is essential for effective treatment. Misinterpreting the intent of self-injurious behavior may lead to an inappropriate level of psychiatric care. As an example, suicidal behavior (suicide attempts) nearly always requires inpatient hospitalization, whereas nonsuicidal self-injury typically does not. In one sample of adolescent psychiatric inpatients with a history of nonsuicidal self-injury (n = 50), nearly 90 percent reported that their nonsuicidal self-injury behavior had sometimes been misinterpreted as a suicide attempt [24].

As clinical severity increases, suicidal thoughts and behaviors are more likely to co-occur with nonsuicidal self-injury. All self-injurious thoughts and behaviors – both suicidal and nonsuicidal

– should be assessed.

Adolescents and parents may provide conflicting information about the nature of the self-injury and function of the behavior. As an example, the same behavior may be reported as a suicide attempt by an adolescent but as nonsuicidal self-injury (ie, "suicide gesture") by the parent [25]. Clinicians should explore potential reasons for the conflicting information and assess the parent-adolescent relationship before deciding which individual is providing the most reliable information.

Assessment instruments — Several validated measurement tools are available to assess lifetime and recent nonsuicidal self-injury, identify the factors that are involved in maintaining the behavior, and monitor the behavior during treatment [2,21]. These instruments are typically not part of standard clinical practice [17] but can help inform treatment.

The first measure described below is a self-report instrument and the second is an interviewer-administered tool; both have good psychometric properties and have demonstrated the greatest utility for assessing the frequency and function of nonsuicidal self-injury in clinical and research settings [26]. Other available measures are also listed.

- **Functional Assessment of Self-Mutilation** – The Functional Assessment of Self-Mutilation (table 1) is a self-report measure of past-year nonsuicidal self-injury that assesses the use of 11 different methods for self-injury, the frequency of each method, and the overall function(s) of nonsuicidal self-injury [27,28]. The instrument has demonstrated adequate reliability and validity in clinical [29] and nonclinical [28] samples of adolescents.

- **Self-Injurious Thoughts and Behaviors Interview** – The Self-Injurious Thoughts and Behaviors Interview (table 2) is a structured, interviewer-administered instrument that may be used to assess both suicidal and nonsuicidal self-injurious thoughts and behaviors [25]. This instrument distinguishes between behaviors that are performed for suicidal and nonsuicidal reasons. Although interviewer-administered instruments are used less frequently in routine clinical practice because they are more labor intensive than self-report questionnaires, interviewer-administered instruments allow for clarification of ambiguous or contradictory responses, help differentiate nonsuicidal behavior from suicidal behavior, and can identify episodes of nonsuicidal self-injury that are not identified through other assessment methods [30].

  The Self-Injurious Thoughts and Behaviors Interview takes approximately 10 to 45 minutes to complete, depending upon the patient's history of self-injury. The instrument has demonstrated excellent interrater reliability and adequate six-month test-retest reliability, as well as good concurrent validity with other measures of self-injurious behaviors [31].

- **Others** – Other available self-report instruments include the Inventory of Statements about Self-Injury (table 3) [32-34], Alexian Brothers Assessment of Self-Injury [34], and Non-Suicidal Self-Injury – Assessment Tool [35].

In addition to using assessment instruments as part of an initial evaluation, these tools can be used to monitor patients during treatment to track their urges to engage in nonsuicidal self-injury, their actual episodes of nonsuicidal self-injury, and other coping skills they try when the urge to self-injure arises. Monitoring patients during treatment is discussed separately. (See "Nonsuicidal self-injury in children and adolescents: General principles of treatment", section on 'Monitoring'.)

INFORMATION FOR PATIENTS AND FAMILIES

Multiple resources are available for patients with nonsuicidal self-injury and their families. (See "Nonsuicidal self-injury in children and adolescents: General principles of treatment", section on 'Information for patients and families'.)

SUMMARY

- Nonsuicidal self-injury is a behavior characterized by the deliberate destruction of body tissue in the absence of any intent to die and for purposes that are not socially sanctioned. (See 'Introduction' above and 'Terminology' above.)

- Suspicion of nonsuicidal self-injury is warranted in youth who present with unexplained frequent injuries or “accidents” to the forearms, wrists, and hands (or other body parts); unusual or inappropriate dress (eg, not seasonally appropriate) or reluctance to participate in activities that require less clothing; or prior history of nonsuicidal self-injury. (See 'When to suspect nonsuicidal self-injury' above.)

- Physical wounds should be assessed initially and treated as indicated. (See 'Physical assessment and care' above.)

- When assessing the presence of nonsuicidal self-injury, clinicians should directly ask both the patient and parents/guardians about the behavior, rather than waiting for them to spontaneously report it. In addition, clinicians should distinguish between suicidal and nonsuicidal self-injury by asking about the intent to die from the self-injurious behavior. Self-injurious behavior that is accompanied by **any** intent to die is classified as a suicide attempt. Especially in clinical populations, youth may report both suicidal and nonsuicidal

self-injurious thoughts and behaviors; the assessment should include the full spectrum of self-injury.

If patients endorse nonsuicidal self-injury behavior, clinicians should ask about the:

- Onset
- Past and current frequency of the behavior
- Past and current methods of self-injury
- Medical severity/lethality of the injuries
- Location of the injuries on the body
- Context of self-injury behavior
- Duration of an episode
- Antecedents
- Consequences of the behavior
- Function of the behavior
- Protective factors
- Impact on functioning
- Previous attempts and current desire to stop the behavior
- Current interpersonal and academic stressors
- Other psychiatric symptoms and disorders
- Social support

(See 'Clinical interview' above.)

- Several validated measurement tools, such as the Functional Assessment of Self-Mutilation (table 1) and Self-Injurious Thoughts and Behaviors Interview (table 2), are available to help clinicians assess engagement in nonsuicidal self-injury (frequency and methods), identify the factors that are involved in maintaining the behavior (functions), and monitor the behavior during treatment. (See 'Assessment instruments' above.)

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