Nonsuicidal self-injury in children and adolescents: General principles of treatment

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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].

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 [7].

This topic discusses the general principles of treating nonsuicidal self-injury, and focuses primarily upon adolescents because nonsuicidal self-injury occurs far more often in this age group than in children [8]. In addition, the material is restricted to youth who do not have intellectual disabilities.

Separate topics discuss choosing treatment for nonsuicidal self-injury and the epidemiology, pathogenesis, clinical features, and assessment 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: Prevention and choosing treatment".)
- (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: Assessment".)
- (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 [2,9,10]. 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'.)

GENERAL PRINCIPLES

Indications for treatment — Treatment is indicated for:

- Multiple episodes of nonsuicidal self-injury – Early intervention is important to prevent reinforcing habitual behavior.

- A single episode of nonsuicidal self-injury that is used as a means of coping with significant distress, is medically serious (eg, cutting with a razor blade), or requires medical attention (eg, sutures).

For patients with a single episode of nonsuicidal self-injury that is superficial (eg, rubbing skin against a rough surface), does not require medical treatment, and is experimental in nature rather than a means of coping with distress, watchful waiting plus a mental health evaluation is a reasonable intervention.

Expectations for treatment — Most patients engaging in nonsuicidal self-injury are not able to abruptly and completely stop the behavior overnight, especially patients who frequently engage in the behavior. Recovery is a process and several treatment gains can be achieved short of completely stopping the behavior, including reduced frequency of nonsuicidal self-injury, reduced severity of nonsuicidal self-injury (eg, more minor scratching rather than cutting with a sharp object), and successful use of other adaptive coping skills when urges to self-injure arise.

Clinician's attitude — Clinicians should monitor their own responses to patients engaging in nonsuicidal self-injury [11]. A review of 74 studies found that clinicians often have a negative attitude, including irritation, anger, and frustration, toward patients who self-injure [12]. If the clinician's discussions with patients about their nonsuicidal self-injury are too aversive (eg, judgmental), patients may discontinue treatment and may be reluctant to disclose self-injury in the future.

Family involvement — We recommend that treatment of nonsuicidal self-injury include parents or guardians. Evidence supporting family involvement includes a meta-analysis of 19 randomized trials that compared psychotherapy with usual care in adolescents (n >2000) with at least one episode of self-injury [13]. Reduction of self-injury was observed in trials with a large family component but not in trials with a small family component.

Confidentiality — Confidentiality issues may arise when working with minors engaging in nonsuicidal self-injury. Clinicians should discuss and agree upon the boundaries of confidentiality early and openly with both the adolescent and their parents or guardians. Patients may be reluctant to disclose the nature and extent of their nonsuicidal self-injury, particularly if they have concerns about what information will be shared with their parents/guardians [14]. As an example, both the patient and their parents may agree that it is not necessary to disclose all episodes of nonsuicidal self-injury with the parents unless the adolescent is at imminent risk of potentially lethal injury (eg, active suicide ideation with a plan is also present). Nevertheless, even in cases where the behavior currently poses little medical risk to the patient, informing the parents may be appropriate if it enables them to watch the patient to ensure that the behavior does not progress.

Youth who privately reveal or acknowledge nonsuicidal self-injury to clinicians may ask the clinician to not disclose the behavior to their parents. The decision to honor or override this

request is based upon the clinician's judgment regarding the risk that the behavior poses and is comparable to decisions that clinicians make about disclosing other health risk behaviors to parents, such as alcohol use, other drug use, and risky sexual behavior. The factors that are involved in deciding whether to inform the parents about the patient's nonsuicidal self-injury include the following:

- Frequency of the behavior
- Methods that are used
- Medical severity of the self-injury
- Amount of distress that is driving the behavior
- Degree of functional impairment that is present
- Presence of psychopathology, suicidal ideation, and/or suicidal behavior

These factors are discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria".)

In some cases, clinicians can abide by the youth's request to not reveal nonsuicidal self-injury to their parents. An example of such a case is an adolescent who has engaged in nonsuicidal self-injury once or twice, using a single method that led to superficial self-injury and did not require medical attention, and reports no co-occurring suicidal thoughts or behaviors.

However, in cases where the nonsuicidal self-injury is frequent (eg, weekly), increasing in severity, and co-occurring with suicidal thoughts and behaviors, clinicians should inform the parent of the risk to their child's safety. How the clinician tells the parent should be discussed with the adolescent to maintain good rapport. As an example, the adolescent can be given a choice of how the parent is told:

- The clinician tells the parent without the adolescent present and reviews in advance with the adolescent what the clinician plans to tell the parent.
- The clinician tells the parent with the adolescent present so the adolescent can clarify any points as desired.
- The adolescent tells the parent with the clinician present so the clinician can ensure that the correct information is conveyed to the parent.

Level of care — Decisions about appropriate care are based upon ensuring patient safety while maintaining the highest level of functioning in school/work, social, and family domains. The level of care (setting) for treating nonsuicidal self-injury depends upon several factors, such as family support, availability of resources, the frequency and medical severity of the self-injurious

behavior, and the co-occurrence of suicidal thoughts and behaviors. Most patients who are not at moderate, high, or imminent risk for suicide will receive outpatient care for nonsuicidal self-injury [15].

Inpatient hospitalization may be indicated for patients engaging in nonsuicidal self-injury who [15,16]:

- Cause severe bodily harm to themselves (eg, require medical attention, such as suturing)
- Cannot be adequately monitored at home
- Present with co-occurring psychiatric symptoms that may be a safety risk for the patient or others (eg, severe agitation, aggression, or violence; or psychotic symptoms)

However, clinicians should avoid unnecessary hospitalizations that can make patients reluctant to disclose nonsuicidal self-injury in the future, and thus prevent patients from receiving appropriate care. As an example, if nonsuicidal self-injury occurs alone, without moderate to severe symptoms such as aggression or psychosis, and without suicidal planning, inpatient hospitalization is generally not necessary.

Indications for day (partial) hospitalization include nonsuicidal self-injury that occurs in the context of psychiatric disorders with moderate functional impairment (eg, periodically to frequently missing school), provided that patients can be monitored at home (because they will go home each day after treatment).

Motivation for change — Patients whose nonsuicidal self-injury is strongly reinforced intrapersonally or socially may have little motivation to engage in treatment aimed at stopping the behavior. Clinicians can address this resistance to change with motivational interviewing, which is a short-term psychotherapeutic technique used to help patients identify reasons to change and engage with therapy aimed at reducing their harmful or maladaptive behaviors [17]. Motivational interviewing is particularly useful when patients are ambivalent about treatment and changing their behavior.

The primary purpose of motivational interviewing is to help patients recognize their ambivalence about engaging in nonsuicidal self-injury, to increase their motivation to change their behavior, and to help them engage with therapy. The general approach is an empathic and nonjudgmental exploration of the advantages and disadvantages of staying the same versus changing. The clinician aims to help the patient highlight their reasons to change and increase self-recognition that they are capable of change.

The duration of motivational interviewing varies (eg, one to five sessions), and each session is approximately 60 minutes in length. Treatment sessions explore the:

- Physical, psychological, and social consequences of nonsuicidal self-injury
- Pros and cons of nonsuicidal self-injury
- Value and meaning of nonsuicidal self-injury in the patient's life
- Patient's goals in life
- Motivations for stopping nonsuicidal self-injury (potential benefits)
- Ambivalence about and barriers to stopping nonsuicidal self-injury
- Discrepancy between the patient's current state of functioning and desired future state

Safety plan — For patients who engage in nonsuicidal self-injury, we suggest that clinicians and patients collaborate to develop an individualized safety plan (also called a crisis response plan) to help increase the patient's safety, based upon clinical experience [9,17,18]. Using a safety plan is a best practice for patients who engage in nonsuicidal self-injury [17].

The key elements of the safety plan include a list of:

- Warning signs and proximal antecedents (triggers) to engaging in nonsuicidal self-injury.
- Strategies for coping with urges to self-injure. These strategies generally include activities to help one relax or distract oneself, such as exercising, listening to music, writing in a journal, and reading. In addition, strategies may include changing one's environment to be around people and to go to places that provide distraction (without telling others that one is having the urge to self-injure).
- Human resources that patients can use when they feel unsafe, including family, friends, and mental health services.
- Keeping the environment safe, such as getting rid of instruments that they might use to self-injure.

The following figure is a template that clinicians and patients can use to start the process of creating a safety plan (figure 1). In addition, guidelines for developing an individualized safety plan, which can be modified to focus on nonsuicidal self-injury instead of suicidal behavior, are available at Suicide Prevention Resource Center.

Contracting for safety — One strategy sometimes used in clinical practice is a safety or no-harm contract. The phrases "contract for safety" and "no-harm contract" imply that if patients have thoughts of and urges to self-injure (most often suicidal self-injury but also used for nonsuicidal self-injury), patients make a promise to their clinician that they will not harm themselves over a specified amount of time (eg, until the next session, over the length of therapy, or indefinitely), and that patients will seek help if necessary. The terms are not defined or used consistently, and clinicians generally do not receive formal training in using no-harm contracts [19].

These safety contracts are not recommended. Despite their wide use, there is no evidence that such contracts reduce self-injurious behavior [17,19]. Rather, these contracts may have deleterious effects on the patient-clinician relationship [20]. As an example, some patients view the contract as an administrative task that is not motivated by genuine clinician concern. In addition, clinicians may overestimate the protection these contracts provide and develop a false sense of security. Better alternatives include ongoing dialogue between patients and clinicians to establish a therapeutic alliance, regular assessments of risk over time, and an individualized patient safety plan. (See 'Safety plan' above.)

Indirect evidence that suggests contracting for safety is not effective includes a randomized trial that compared no-harm contracts with safety plans in active duty soldiers (n = 97) who presented to an emergency appointment with suicidal ideation [21]. During the six-month follow-up, more patients attempted suicide in the group that contracted for safety than the group that developed a safety plan (19 versus 5 percent).

Peer and internet influences — Some patients engage in nonsuicidal self-injury in the company of peers who also self-injure or may be influenced to self-injure by internet websites or social media. Parents should be aware of these influences when considering how best to keep their child safe. For some adolescents, it may be necessary to limit access to peers, internet sources, and social media that increase the risk of self-injury. Peer and internet influences are discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Pathogenesis", section on 'Peer influences'.)

Monitoring — During treatment, we recommend monitoring nonsuicidal self-injury by asking patients to keep a daily or weekly log of nonsuicidal thoughts/urges and behaviors (including frequency and methods), as well as the antecedents (eg, negative emotions and interpersonal conflicts) and consequences of the thoughts/urges and behavior [2]. In addition, patients should track their use of alternative and adaptive coping skills when self-injurious urges arise. This self-monitoring log can help patients and clinicians recognize when nonsuicidal self-injury is most likely to occur and the function(s) of the behavior, which can help target treatment more

effectively for the patient. The functions of (motivations for) nonsuicidal self-injury are discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Pathogenesis", section on 'Function of the behavior'.)

In dialectical behavior therapy, patients may be asked to complete a diary card that tracks this information in paper-and-pencil or electronic form (eg, using a dialectical behavior therapy smartphone app).

For clinicians who want to monitor nonsuicidal self-injury more systematically during treatment, several measurement tools are available [2]. One such instrument is The Functional Assessment of Self-Mutilation (table 1), which is a self-report measure of nonsuicidal self-injury that assesses the use of 11 different methods for self-injury, the frequency of each method, and the overall functions of nonsuicidal self-injury [22,23]. The instrument has demonstrated adequate reliability and validity in clinical samples of adolescents [24]. Another option is the Inventory of Statements about Self-Injury (table 2) [25-27]. Benefits of monitoring patients with measurement tools include tracking treatment progress for both the patient and the clinician or highlighting nonresponsiveness to treatment; however, there is no evidence demonstrating that monitoring progress with these tools improves outcomes. Additional information about assessment instruments that can be used for systematically monitoring treatment of nonsuicidal self-injury is discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Assessment", section on 'Assessment instruments'.)

Primary care clinicians can help monitor patients by asking about the frequency and method of the behavior, as well as through physical examination.

Associated mental disorders — Nonsuicidal self-injury behavior often occurs in the context of established psychiatric disorders; both nonsuicidal self-injury and the psychiatric disorder should be treated concurrently [28]. For patients with borderline personality disorder who engage in nonsuicidal self-injury, treatment of borderline personality disorder can improve nonsuicidal self-injury [17]. However, in most cases, clinicians should not expect that treatment of the psychiatric disorder (eg, major depression) will also resolve the nonsuicidal self-injury. Although it is possible that successful treatment of depression may ameliorate nonsuicidal self-injury [29,30], it is more likely that nonsuicidal self-injury will require a specific psychotherapy alongside treatment of the depressive disorder [17]. (See "Nonsuicidal self-injury in children and adolescents: Prevention and choosing treatment", section on 'Choosing treatment'.)

The relationship between nonsuicidal self-injury and established mental disorders is discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Clinical features and proposed diagnostic criteria", section on 'Relation to psychiatric disorders'.)

Referral — The large majority of patients who engage in nonsuicidal self-injury are referred to mental health clinicians if these specialists are available because most primary care clinicians do not administer psychotherapy [31]. Primary care clinicians may be the first individuals to recognize that an adolescent is engaging in nonsuicidal self-injury. As such, these clinicians have an opportunity to express concern and connect the adolescent and their family with appropriate mental health treatment.

CHOOSING TREATMENT

Choosing a specific treatment regimen for nonsuicidal self-injury is discussed separately. (See "Nonsuicidal self-injury in children and adolescents: Prevention and choosing treatment".)

INFORMATION FOR PATIENTS AND FAMILIES

The following resources can be offered to patients with nonsuicidal self-injury and their families:

- **Websites:**
  - Self-Injury Outreach and Support provides information for children/adolescents and their families about self-injury.
  - Self-Injury and Recovery Research and Resources for adolescents, families, and clinicians.
  - The Trevor Project Support Center can be helpful for LGBTQ+ youth.
- **Books:**
  - Hollander M. Helping Teens Who Cut: Using DBT Skills to End Self-Injury, 2nd ed, Guilford Press, New York 2017.
  - Nixon MK, Heath NL. Self-injury in Youth: The Essential Guide to Assessment and Intervention, Routledge, New York 2009.
  - Nock MK. Understanding Nonsuicidal Self-Injury: Origins, Assessment, and Treatment, American Psychological Association, Washington DC 2009.
  - Walsh BW. Treating Self-Injury: A Practical Guide, 2nd ed, Guilford Press, New York 2014.

SUMMARY AND RECOMMENDATIONS

- Treatment for nonsuicidal self-injury is indicated when an adolescent has engaged in multiple episodes of nonsuicidal self-injury, as well as a single episode of nonsuicidal self-injury that is used as a means of coping with significant distress, is medically serious (eg, cutting with a razor blade), or requires medical attention (eg, sutures). (See 'Indications for treatment' above.)

- Recovery is a process and complete cessation of nonsuicidal self-injury is not likely to happen overnight. Several treatment gains can be achieved short of completely stopping the behavior, including reduced frequency and severity of nonsuicidal self-injury. (See 'Expectations for treatment' above.)

- Confidentiality issues may arise when working with minors engaging in nonsuicidal self-injury. Clinicians should discuss and agree upon the boundaries of confidentiality early and openly with both the adolescent and their parents.

  Youth who privately reveal or acknowledge nonsuicidal self-injury to clinicians may ask the clinician to not disclose the behavior to the youth's parents. The decision to honor or override this request is based upon one's clinical judgment regarding the risk that the behavior poses, and is comparable to decisions that clinicians make about disclosing other health risk behaviors, such as alcohol use, other drug use, and risky sexual behavior. (See 'Confidentiality' above.)

- The level of care (setting) for treating nonsuicidal self-injury depends upon several factors, such as family support, availability of resources, and the frequency and medical severity of the self-injurious behavior. Most patients receive outpatient care. (See 'Level of care' above.)

- Patients whose nonsuicidal self-injury is strongly reinforced intrapersonally or socially may have little motivation to engage in treatment aimed at stopping the behavior. Clinicians can use motivational interviewing to address this resistance to change. (See 'Motivation for change' above.)

- We do not advise using safety or no-harm contracts that ask patients to promise that they will keep themselves safe for a specified amount of time (contract for safety). There is no evidence that these contracts work and they may have a negative impact on the patient and the therapeutic relationship. (See 'Contracting for safety' above.)

- For patients with nonsuicidal self-injury, we suggest an individualized safety plan, rather than asking patients to contract for safety, to help increase the patient's safety (**Grade 2C**). The key elements of the safety plan include a list of warning signs for engaging in nonsuicidal self-injury behavior, strategies for coping with urges to self-injure, and resources that patients can use when they feel unsafe. (See 'Safety plan' above.)

- During treatment, we monitor for nonsuicidal self-injury by asking patients to keep a daily or weekly log of their self-injurious urges and behaviors, along with the triggers/antecedents, consequences, and identified function(s) of the behavior. In addition, patients should track their use of alternative and adaptive coping skills when self-injurious urges arise. (See 'Monitoring' above.)

- Multiple specific treatments are available for nonsuicidal self-injury. (See "Nonsuicidal self-injury in children and adolescents: Prevention and choosing treatment".)

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