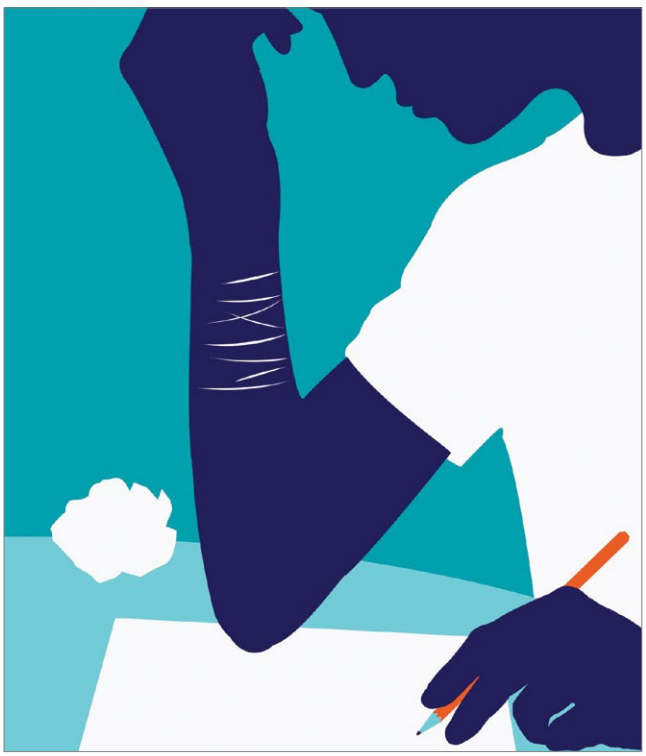
Current PSYCHIATRY

Nonsuicidal self-injury: How categorization guides treatment

Understanding how and why patients engage in NSSI leads to optimal care



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Formerly called self-mutilation, self-injury, or self-harm, nonsuicidal self-injury (NSSI) is the deliberate and direct alteration or destruction of healthy body tissue without suicidal intent; these behaviors range from skin cutting or burning to eye enucleation or amputation of body parts. NSSI must be deliberate, as opposed to accidental or indirect behaviors—such as overdoses or ingesting harmful substances—that cause injury that is uncertain, ambiguous as to course, or invisible (the injuries do not disfigure observable body tissue).[1] NSSI acts are done without an intent to die, although persons who self-harm may have suicidal ideation and passive thoughts of dying.[2] Persons who repeatedly engage in NSSI and are demoralized over their inability to control it are at risk for suicide attempts.[3]

NSSI can be classified as nonpathological or pathological.[4] Culturally sanctioned, nonpathological NSSI consists of body modification practices such as tattoos or piercing. Body modification practices may be a sublimation of pathological NSSI. For a description of nonpathological NSSI, see the ***Box*** (***page 22***).[5] Pathological NSSI typically is a method of emotional regulation. Understanding why patients engage in pathological NSSI and how it is categorized can help guide assessment and treatment.

Why people engage in NSSI

NSSI is best regarded as a pathological approach to emotional regulation and distress tolerance that provides

Nonsuicidal self-injury

Clinical Point

NSSI may fall within 4 descriptive categories: major, stereotypic, compulsive, or impulsive

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Box

Body modification: When self-injury is not pathological

Body modification practices and rituals are culturally sanctioned forms of nonsuicidal self-injury (NSSI). Body modification practices include tattooing and piercing earlobes, nipples, and other body parts to accommodate jewelry. Most practices are harmless but when carried to extremes, they may point to underlying neuroses. For some patients, a tattoo or piercing may be psychologically beneficial—eg, to reclaim one's body after an attack or rape.[5]

Body modification rituals, such as head gashing by Sufi healers, penis cutting during aboriginal coming-of-age ceremonies, and Hindu body piercing to attain spiritual goals, are meaningful activities that reflect the tradition, symbolism, and beliefs of a society. These rituals serve an elemental purpose by correcting or preventing destabilizing conditions that threaten people and communities, such as mental and physical diseases; angry gods, spirits, or ancestors; failure of children to accept adult responsibilities; conflicts (eg, male-female, intergenerational, interclass, intertribal); loosening of clear social role distinctions; loss of group identity; immoral or sinful behaviors; and ecological disasters.

These rituals are effective because participants believe they promote healing, spirituality, and social order. Knowledge about body modification practices and rituals in which NSSI is perceived to be therapeutic opens the door to an understanding of pathological NSSI as a form of self-help behavior and allows clinicians to have a more empathic interaction with patients who self-injure.

rapid but temporary relief from disturbing thoughts, feelings, and emotions. For approximately 90% of patients, NSSI decreases symptoms, most commonly untenable anxiety ("It's like popping a balloon"), depressed mood, racing thoughts, swirling emotions, anger, hallucinations, and flashbacks.[6,7] In some instances, NSSI generates desired feelings and self-stimulation during periods of dissociation, depersonalization, grief, insecurity, loneliness, extreme boredom, self-pity, and alienation.[8,9] NSSI also may signal distress to elicit a caring response from others or provide a means of escape from intolerable social situations.[10] ***Table 1*** lists factors associated with NSSI.

The functional approach

One model of classifying NSSI focuses on the behavioral functions it serves.[11,12] In this model, the most common function of NSSI is removal or escape from an aversive affective or cognitive state (automatic positive reinforcement). Automatic negative reinforcement explains using NSSI to generate feelings—eg, by patients with anhedonia or numbness. NSSI also may be used as a signal of distress to gain attention, access helpful environmental resources (social positive reinforcement), or remove distressing interpersonal demands (social negative reinforcement).

The functional model is key to providing thorough clinical evaluations that should include understanding the antecedent and consequent thoughts, feelings, situations, triggers, and vulnerabilities related to NSSI acts.

The medical approach

A descriptive, phenomenological model of NSSI classification uses concepts and terminology with which most psychiatrists are familiar, takes into account patients who have comorbid psychiatric disorders, is based on atheoretical, descriptive observations, and fits into what might be regarded as a "medical model." In this classification, NSSI usually is regarded as a symptom or associated feature of a specific psychiatric disorder, although it may occur in persons who do not meet diagnostic criteria of a mental illness—eg, "copycat" cutting in high school students.[13,14] NSSI may fall within 4 descriptive categories: major, stereotypic, compulsive, or impulsive. For psychiatric disorders associated with these types of pathological NSSI, see ***Table 2*** (***page 24***).

Major NSSI includes infrequent acts that destroy significant body tissue, such as eye enucleation and amputation of body parts. They are sudden, messy, and often bloody

acts. Seventy-five percent occur during a psychotic state, mainly schizophrenia; of these, approximately one-half occur during a first psychotic episode.[15] The reasons patients typically offer for such behavior often defy logical understanding—eg, to enhance general well-being—but most center on religion, such as a concrete interpretation of biblical texts about removing an offending eye or hand or becoming an eunuch,[16,17] or on sexuality, such as controlling troubling hypersexuality or fear of giving in to homosexual urges.[18]

Stereotypic NSSI acts, most commonly associated with severe and profound mental retardation, include repetitive head banging; eye gouging; biting lips, the tongue, cheeks, or fingers; and face or head slapping. The behaviors may be monotonously repetitive, have a rhythmic pattern, and be performed without shame or guilt in the presence of onlookers.

Compulsive NSSI encompasses repetitive behaviors such as severe skin scratching and nail biting, hair pulling (trichotillomania), and skin digging (delusional parasitosis).

Impulsive NSSI consists of acts such as skin cutting, burning, and carving; sticking pins or other objects under the skin or into the chest or abdomen; interfering with wound healing; and smashing hand or foot bones. These behaviors usually are episodic and occur more frequently in females. The average age of onset in patients who engage in impulsive NSSI is 12 to 14, although it may occur throughout the life cycle.

One or 2 isolated instances of impulsive NSSI do not have much prognostic importance unless they are serious enough to warrant an emergency department visit. The real danger is when the behavior becomes repetitive and "addictive." The crossover from episodic to repetitive usually varies from 5 to 10 episodes.

Persons who engage in repetitive NSSI may use multiple methods, but skin cutting predominates. Such persons often develop a self-identity as a "cutter," are preoccupied with their NSSI, may carve words into their skin, and may perform acts of self-harm with other self-injurers. Some may cut themselves hundreds or even thousands of times, creating scars that result in social morbidity. They often seek professional help avidly, but may become so demoralized over their inability to stop their NSSI that they are at risk for suicide.[3] In some repetitive self-injurers, other impulsive behaviors such as bulimia or substance abuse may alternate or coexist with NSSI. This pattern often runs its course in 5 to 15 years and may end abruptly, especially in patients with borderline personality disorder.

Table 1

Factors associated with NSSI

High levels of negative and unpleasant thoughts and feelings[a]
Poor communication skills and problem-solving abilities[b]
Abuse, maltreatment, hostility, and marked criticism during childhood[c,d]
Under- or over-arousal responses to stress[b]
High valuation of NSSI to achieve a desired response[e]
Need for self-punishment[a]
Modeling behaviors based on exposure to NSSI among peers, on the Internet—ie, postings on YouTube—and in the media[f]

NSSI: nonsuicidal self-injury

Source: For reference citations, visit this article at CurrentPsychiatry.com

First-line treatment: Psychotherapy

Many studies have demonstrated the efficacy of psychotherapy as the primary treatment for NSSI.[19-21] Except for patients with Lesch-Nyhan syndrome or other rare neurologic syndromes, the biologic causes of NSSI, including the role of endogenous opioids, are unclear. No medications are FDA-approved for NSSI. Pharmacotherapy may help NSSI patients, but such treatment recommendations are based on clinical experience, and polypharmacy is common.[22] Studies have not demonstrated specific benefits or consistent efficacy of pharmacotherapy for NSSI.[23]

continued

Clinical Point

One or 2 impulsive NSSI acts do not have prognostic importance unless they are serious enough to warrant an ED visit

Nonsuicidal self-injury

Table 2

Psychiatric disorders associated with pathological NSSI

Type of NSSI	Related psychiatric disorders
Major	Alcohol/drug intoxication, body integrity identity disorder[a]
Stereotypic	Autism,[b] Tourette's syndrome,[c] Lesch-Nyhan syndrome,[d] hereditary neuropathies,[e] mental retardation
Compulsive	Trichotillomania, delusional parasitosis
Impulsive	Anxiety disorders (generalized, acute stress, posttraumatic stress, obsessive-compulsive, substance-induced[f-h]); borderline, histrionic, and antisocial personality disorders[i,j]; somatoform and factitious disorders[k,l]; dissociative identity and depersonalization disorders[m,n]; anorexia and bulimia nervosa[o,p]; depressive disorders[q,r]; bipolar disorder[s]; schizophrenia[t,u]; alcohol use disorder[v]; kleptomania[w]

NSSI: nonsuicidal self-injury

Source: For reference citations, visit this article at CurrentPsychiatry.com

Clinical Point

No medications are FDA-approved for NSSI but clinical experience suggests pharmacotherapy may help some NSSI patients

Major NSSI. Prevention is key to addressing major NSSI. Consider atypical antipsychotics for psychotic patients who are preoccupied with religion, the Bible, or sexuality, as well as those who dramatically and suddenly change their appearance by cutting off their hair, engaging in extreme body modification practices, or wearing bizarre clothes.[24] In my clinical experience, agitated patients who have committed major NSSI are at high risk for a second episode and should receive pharmacotherapy based on treatment guidelines and hospitalized until the agitation is controlled.

Stereotypic NSSI. Patients with this form of NSSI often cannot articulate what is bothering them. With input from caretakers, assess the likelihood that a patient is reacting to pain. Analgesics may be effective. Also check for infections such as otitis media. Selecting a medication can be challenging. Start with a moderate dose of a selective serotonin reuptake inhibitor (SSRI), then slowly add an atypical antipsychotic, followed by a mood stabilizer, then clonidine, and then a beta blocker; a trial of naltrexone also is an option.[23] Behavior therapy is the primary treatment.

Compulsive NSSI. Compulsive NSSI patients typically seek help from dermatologists or family physicians. Literature on psychiatric treatment is limited, but SSRIs, lithium, benzodiazepines, and atypical antipsychotics (for delusional parasitosis) may be effective. N-acetylcysteine, 600 mg twice a day, may relieve trichotillomania.[25] Treatment should include psychotherapy.

Impulsive NSSI. Patients who engage in episodic impulsive NSSI should receive pharmacotherapy for underlying psychiatric illnesses such as generalized anxiety disorder, posttraumatic stress disorder, or depression. Do not automatically diagnose borderline personality disorder. Patients whose NSSI behavior is uncontrollable initially should receive high doses of SSRIs that can be lowered when impulsivity decreases, atypical antipsychotics, and a mood stabilizer such as lamotrigine. Psychotherapy is vital, especially dialectical behavior therapy. Cognitive-behavioral and interpersonal therapies also are effective, as is psychodynamic therapy.[19-21]

NSSI patients and their families may benefit from Web sites that provide information, advice, monitored blogs, and support groups (see ***Related Resources***).

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Related Resources

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Drug Brand Names

Clonidine • Catapres, Kapvay
Lamotrigine • Lamictal
Lithium • Eskalith, Lithobid
Naltrexone • ReVia

Disclosure

Dr. Favazza reports no financial relationship with any company whose products are mentioned in this article or with manufacturers of competing products.

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Clinical Point

Psychotherapy, especially dialectical behavior therapy, is vital for impulsive NSSI patients

Bottom Line

Pathological nonsuicidal self-injury (NSSI) can be categorized as major, stereotypic, compulsive, and impulsive. Studies have shown psychotherapy, especially dialectical and other behavioral therapies, are effective primary treatments for several types of NSSI. Pharmacotherapy should be used in NSSI patients with underlying psychiatric illnesses, such as, generalized anxiety disorder, posttraumatic stress disorder, or depression.

Table 1

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Table 2

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