Untangling a Complex Web:
How Non-Suicidal Self-Injury and Suicide Attempts Differ

By Jennifer J. Muehlenkamp, Ph.D., and Patrick L. Kerr, Ph.D.

Practitioners, physicians, school personnel, parents, and many others are starting to see more and more teenagers engage in acts of self-inflicted injuries, such as cutting or burning of the skin. These types of behaviors are referred to as non-suicidal self-injury (NSSI) and are creating a surge of concern about how teens are coping with the stressors they face. Current estimates of the lifetime prevalence of NSSI in high school students tends to average 20%, although rates vary widely across specific samples and can be as high as 46% (e.g., Heath, Schaub, Holly, & Nixon, 2009). Also of concern are the high rates of suicide attempts among adolescents. Suicide remains the third leading cause of death for adolescents, and studies find that the yearly suicide attempt rate in adolescents is around 8.5% (Center for Disease Control, 2009). The high rates of both NSSI and suicide attempts in adolescents warrants considerable focus for prevention initiatives, especially given findings that many adolescents who attempt suicide have also engaged in NSSI at some point in their life, and those who engage in NSSI are at elevated risk for a future suicide attempt.

The relationship between NSSI and suicidal behavior is complex and often difficult to untangle. While most self-injurers never exhibit suicidality, there is evidence of a correlation between suicidality and NSSI. Empirical research has found that approximately 28–55% of self-injurers experience suicidal thoughts during episodes of NSSI (Favazza, 1996). Researchers have also estimated that as many as 70% of individuals with a history of repetitive NSSI will attempt suicide at some point during their life (Nock et al., 2006). Furthermore, these two behaviors share many correlates of potential risk such as conflicted interpersonal relationships, poor problem-solving skills, childhood abuse histories, high levels of self-criticism, and psychiatric diagnoses (e.g., Skegg, 2005). Thus, there is clearly an overlap of risk between these behaviors, and it becomes important to both prevention and intervention efforts to understand the primary differences between them. While NSSI is not a suicide attempt, it is an indicator that something is not right in the life of the person engaging in the behavior and needs to be taken seriously. One way to enhance the likelihood someone with NSSI will seek help is by educating professionals about the key ways in which NSSI and suicide differ so that inappropriate "over-reactions" to the NSSI can be minimized and effective treatment (e.g., Muehlenkamp, 2006) can occur. The goal of this article is to describe the primary differences between NSSI and suicide.

INTENT OR PURPOSE OF THE BEHAVIOR

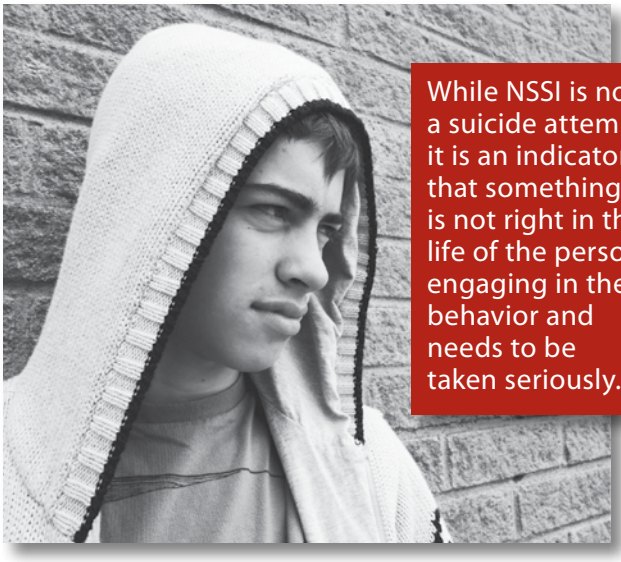
The primary feature differentiating NSSI from suicide attempts lies in the intent, or purpose underlying the behavior. Shneidman (1985) was among the first to highlight the intent of suicidal behavior as one of escape from unbearable psychological pain, or a desire to terminate consciousness. The primary purpose for suicidal behavior is to end one's life. In contrast, those who engage in NSSI are motivated by a desire to alter or change a negative experience. Research has consistently found that the dominant reason reported for engaging in NSSI is to provide relief from overwhelming negative emotions (Klonsky & Muehlenkamp, 2007). Furthermore, individuals who engage in NSSI significantly differ from those who attempt suicide in terms of levels of suicidal ideation, reasons for living, and attraction to life (Muehlenkamp & Gutierrez, 2007). In a large, epidemiological study, Nock and Kessler (2006) found that the strongest feature discriminating suicidal from NSSI behaviors was the level of suicidal intent. While the intent of both NSSI and suicide appears to be some type of escape from psychological distress, it is the intended degree to which the distress is averted (i.e., temporarily or permanently) that is the primary differentiating feature.

SEVERITY/LETHALITY OF METHOD USED

Suicide attempts are characterized by the use of higher lethality methods compared to NSSI, which is typically characterized by low-lethality methods such as cutting, carving, and burning. For example, the Centers for Disease Control and Prevention (2009) reports that roughly 98.6% of suicide deaths result from the suicide attempt methods of self-inflicted gunshots, hanging, overdose, self-poisoning, and jumping from lethal heights. While many non-fatal suicide attempts use these same methods, overdosing tends to be more common particularly among women. Cutting accounts for a mere 1.4% of suicide deaths or highly lethal attempts, yet is the most common method of NSSI. While cutting and other methods of NSSI can sometimes become more severe than intended and potentially lethal, the majority of NSSI acts are of low lethality, easily cared for by the individual, and do not require medical attention (Skegg, 2005; Walsh, 2006). However, there is evidence to suggest that as the severity of the NSSI method increases, the risk for a suicide attempt also increases (Nock et al., 2006). So, it remains crucial to monitor NSSI method severity in an effort to prevent transitions into a potentially lethal level, or to watch for a change of method more consistent with a suicide attempt.

BEHAVIORAL FREQUENCY

While there are subsets of suicidal individuals who may engage in repeat suicide attempts, many suicide attempts occur in singularity (e.g., Walsh, 2006). Among those who do repeat suicide



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attempts, the attempts tend to be during select periods of significant crisis and the frequency is low in comparison to acts of NSSI. Most NSSI is characterized by high frequencies. Approximately 25 to 30% of adolescent self-injurers report only one to two episodes, but the remaining majority will report engaging in five or more episodes, with some individuals reporting over 100 episodes in their lifetime (Walsh, 2006). Therefore, NSSI is viewed as being a chronic and repetitive behavior (Favazza, 1996) in contrast to suicide attempts, which tend to be periodic and infrequent by comparison.

NUMBER OF METHODS USED

Related to the frequency of the acts, there is also significant variation in the number of methods of used. Research has documented that most repeated suicide attempts tend to use the same method such as an overdose or self-poisoning (Berman et al., 2006). Conversely, NSSI individuals are likely to use multiple methods for their self-injury. For example, many adolescents who self-injure report using an average of three separate methods such as cutting, abrading/severe scratching to the point of noticeable tissue damage, and burning. Research has found that up to 78% of self-injuring persons will report using multiple methods of NSSI, and this may be motivated by circumstances of method availability, personal preferences, or the need for a particular effect (e.g., Walsh, 2006).

COGNITIVE STATE SURROUNDING THE BEHAVIOR

There also appear to be important differences in the thoughts and problem-solving capabilities of NSSI and suicidal individuals. Suicidal persons consistently report elevated levels of hopelessness and helplessness, and they show poor problem-solving abilities (Berman et al., 2006; Skegg, 2005). The high levels of hopelessness characteristic of suicide attempters may prevent effective problem-solving because they are unable to generate potential solutions to reduce their stress. The inability to detect potential options for alleviating distress further contributes to feelings of helplessness, which can result in a constricted "tunnel-vision" of solution generation in which suicide seems the only logical decision to alleviate suffering (Berman et al., 2006).

Walsh (2006) proposes that those engaging in NSSI do not experience the same hopelessness that suicidal individuals do because they are participating in a behavior that results in a relief of their distress. NSSI individuals experience a sense of control over their situation due to their ability to ameliorate their distress. This experience of mastery is in direct opposition to the hopelessness experienced by suicidal persons. Further supporting this distinction are research findings that adolescents engaging in NSSI report significantly stronger future orientations (e.g., low hopelessness), greater reasons for living, and more fears about suicide than adolescents who attempted suicide (Muehlenkamp & Gutierrez, 2007). Adolescents with a history of NSSI have also been found to demonstrate comparable problem-solving abilities as their non-self-injuring peers, showing deficits only in their ability to implement adaptive solutions. Thus, it appears that individuals engaged in NSSI can be differentiated from suicide attempters in the mental states surrounding the act of self-injury. This distinction also offers potentially important prevention implications. Since suicidal behavior is characterized by ineffective problem-solving and high levels of hopelessness/helplessness, clinicians who notice increases in these features within NSSI clients should be particularly concerned about increased suicide risk.

PSYCHOLOGICAL REPERCUSSIONS FOLLOWING THE BEHAVIOR

There are also documented differences in the individual and interpersonal experiences following NSSI or suicide attempts. Suicide attempts that do not result in death can lead the individual to experience continued distress or frustration that death did not occur (Berman et al., 2006), which may perpetuate desires to die and exacerbate suicidal intent. In contrast, the immediate psychological experience following NSSI is often one of relief and a reduction of negative affect and arousal (Klonsky & Muehlenkamp, 2007). An important feature is the immediacy of the relief, which is believed to be an important reinforcing principle for NSSI. Therefore, if a client begins to suggest that his or her NSSI is no longer effective in reducing the distress (and they haven't evidenced alternative adaptive coping skills), the clinician should be sensitive to the possibility of suicide risk because the individual may begin to perceive a loss of control that can cycle into suicidal thinking.

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Along with differences in the intrapersonal experiences following an act of NSSI or a suicide attempt, are differences in the interpersonal consequences following the behaviors. Research has consistently documented that persons engaged in NSSI often face negative reactions from others who learn of, or need to respond to, their NSSI (Favazza, 1996; Walsh, 2006). This experience is contrary to the commonly documented care and concern typically offered by others in the environment following a suicide attempt (Skegg, 2005). It appears that suicide attempt behavior is viewed more sympathetically by others in the environment than are NSSI behaviors. Thus, the interpersonal repercussions following the behavior also discriminate NSSI from suicide. This difference has important clinical implications because others' reactions may influence a willingness to disclose or seek help. It is critical that mental health professionals adopt a compassionate, non-judgmental stance (Walsh, 2006) in their discussions of NSSI or suicidal behavior with their clients in order to promote the open communication needed to treat both behaviors. It is recommended that parents, teachers, and even peers respond to discoveries or disclosures of NSSI in a similar non-judgmental fashion by gently acknowledging the internal pain the adolescent may be experiencing, sensitively listening to what the teen has to say, carefully expressing their personal concern for the individual, and discussing ways to link the adolescent to help.

IMPLICATIONS AND CONCLUSIONS

NSSI and suicide attempts are concerning and pervasive problems among adolescents. Recognition of NSSI as a general sign of distress or impairment rather than a disorder-specific symptom is essential to discriminating it from suicidal behavior. While it is clear that individual acts of NSSI are distinct from suicide attempts, these two behaviors remain related. As proposed by Joiner (2006), NSSI may increase risk of suicide through habituation to self-inflicted harm. Repeatedly engaging in less severe NSSI may elicit increasingly severe NSSI that over time can reduce hesitancies towards suicide. The temporary relief and escape from a problem that NSSI provides negatively reinforces the behavior, making it more likely to occur, which then can increase potentials towards suicide attempts. Thus, individuals who engage in repetitive NSSI should be carefully monitored for signs of suicide risk in effort to prevent suicidal behavior. For example, if the frequency of NSSI acts starts to increase and/or the person reports the NSSI is being less useful to their coping; immediate concern for suicide risk should be raised.

The prevention of suicide within NSSI groups is largely dependent on the clinician's understanding of the ways in which the two behaviors differ. Recognizing that NSSI is distinct from suicide and serves different functions is critical because this can open up

Table 2.1
Characteristics Differentiating NSSI and Suicide Attempts

Characteristic	Non-Suicidal Self-Injury	Suicide Attempt
Intent/Purpose for Behavior	• To temporarily escape from psychological distress • To create change in self or environment	• To permanently terminate consciousness/end life • To escape unbearable psychological pain
Severity/Lethality of Method Used	Low	High
Behavior Frequency	High, sometimes more than 100 episodes. Often chronic and repetitive.	Low, typically 1 to 3 episodes
Number of Methods Used	Multiple methods used across episodes	Single method used across episodes
Cognitive State During Self-harm	• Distressed yet hopeful • Difficulty *implementing* adaptive problem-solving	• Hopeless/Helpless • Inability to problem solve
Consequences/Aftermath:		
Intrapersonally	• Sense of relief, calm • Temporarily reduced distress	• Frustration, disappointment • Increased distress
Interpersonally	Rejection, criticism from others	Others express care and concern

a line of communication that allows the adolescent to inform the clinician about how the NSSI operates in his or her life. Furthermore, if a person acknowledges increasing suicidal thoughts during NSSI acts, a significant change in the functions served by the NSSI, or an increase in hopelessness, there is cause for concern that a suicide attempt may occur. Knowing the basic features that discriminate NSSI from suicide permits careful monitoring of client behaviors and experiences so that when the NSSI begins to take on characteristics more common to suicide, the clinician can react appropriately by conducting thorough risk assessments and intervening as appropriate to avert a potential suicide.

In conclusion, the relationship between NSSI and suicide attempts may be thought of as "separate but equal" in terms of risk (see Table 2.1). Research clearly indicates that NSSI and suicide attempts have separate functions and characteristics that differentiate them. However, the risk of suicide conferred by NSSI over time makes NSSI a comparably risky behavior and warrants careful attention for prevention. While the science of preventing NSSI is still in the very early phases of development, there is one potentially promising program that has been developed by Screening for Mental Health, Inc. (www.mentalhealthscreening.org/selfinjury/). The Signs of Self-Injury program is designed to be used within high schools to capitalize on the fact that peers often turn to each other for support. By teaching students the warning signs of NSSI and modeling ways to respond to or inquire about NSSI in their friends, the program aims to link self-injuring adolescents to the help they need. By providing education and reducing stigma about seeking help for NSSI, it is believed repetitive NSSI will decrease and ultimately this may also help to prevent suicide attempts. A preliminary evaluation of this program (Muehlenkamp, Walsh, & McDade, in press) suggests it may be effective in achieving these preventive goals. However, a great deal of research is still needed to determine the most effective ways to prevent the initial act of NSSI.

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