Non-suicidal self-injury: What nurses need to know?

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What does this paper contribute to the wider global clinical community?'

- Nurses in the Emergency Departments (ED) may be the first point of contact for people involved in Non-suicidal self-injury

- Nurses need to be aware of NSSI, its manifestations and treatment

- Providing person centred care to patients involved in NSSI requires an understanding of the behaviour and the functions it serves

Introduction

Non-suicidal self-injury (NSSI) refers the direct, deliberate damage of one's own body tissue in the absence of suicidal intent (Nock, 2010). NSSI is distinguished from behaviour where immediate tissue damage is not present (e.g., excessive alcohol consumption, eating disordered behaviours), behaviour where harmful consequences are unintended or accidental (e.g., cancer from smoking), and from suicidal behaviour, whose prevalence, correlates, course, and response to treatment differ (Nock, 2010). Damage of one's own body tissue is required for this definition, although it is acknowledged that the physical harm caused by NSSI can vary significantly. Socially or culturally sanctioned bodily modification, such as tattooing or body piercing, is not considered as NSSI. Importantly, rather than a symptom of mental disorder, NSSI is conceptualised as a harmful behaviour that can serve several intrapersonal (e.g., regulation of aversive thoughts and feelings) and interpersonal (e.g., help seeking) functions (Nock, 2009).

Common methods of NSSI include cutting (Briere & Gil, 1998; Langbehn & Pfohl, 1993; Nock et al., 2006), burning, scratching (Whitlock et al., 2006), hitting oneself, biting, and interfering with wound healing (Nock et al., 2006; Whitlock, Eckenrode, & Silverman, 2006; Klonsky & Olino, 2008). In the largest study to date of a non-treatment sample, severe scratching of the skin was the most common form of NSSI. Notably, most individuals who self-injure use multiple methods (Favazza & Conterio, 1989; Gratz, 2001; Herpertz, 1995; Whitlock et al., 2006) and the frequency and severity of the behaviour appear to vary in different populations. Studies using school-based or community samples of adolescents and young adults report that the majority of individuals only self-injure a few times (e.g., less than 10 lifetime acts; Whitlock et al., 2008). Studies using inpatient psychiatric samples, by contrast, report that the majority of those who have self-injured have done so much more frequently (e.g., 50 episodes in the past year; Nock & Prinstein, 2004). The severity of

physical injury also varies across samples, as well as by method of NSSI used. Nonetheless, many of those who self-injure report moderate to severe tissue (Whitlock et al., 2008).

Nurses, especially those working in the ED, are at the front-line of providing care to patients presenting with NSSI, as the ED is usually the first point of contact for these patients. To be able to provide effective, timely, and appropriate care to such patients, nurses need to be educationally prepared to understand NSSI, its causes, manifestations and appropriate assessment and treatment regimens. However, evidence suggests that nurses are often not prepared to provide care to such patients (Crawford, Thomas, Khan & Kulinskaya, 2007; Happell et al. 2003) and such lack of preparation contributes to negative attitudes- of nurses towards patients presents with NSSI- which in turn affects the quality of care provided to individuals (Egan, Sarma, & O'Neill, 2012; Happell et al. 2003; McDonough et al. 2003; Patterson et al. 2007; Rayner et al. 2005; McCann, et al., 2007). NSSI patients may be perceived as troublesome (Davidhizar 1993, Watkins 1997) or attention seeking (Dower et al., 2000) and nurses may feel that providing care to them is time-consuming and unrewarding (Sanders, 2000). Such attitudes are not always masked from patients as individuals who have engaged in NSSI find nurses and other staff less supportive or sympathetic (Clarke & Whittaker 1998; Dower et al. 2000; Harris 2000; McHale & Felton, 2010). Appropriate training and support needs to be provided to nurses so that they are able to understand the complexities of NSSI (Conlon & O'Tuathail 2012; Muehlenkamp et al. 2013; Patterson et al. 2007). Specifically, nurses need to be able to accurately assess the risk, understand the function(s) served by these self-damaging behaviours, recognise manifestations, and provide appropriate person-centred care to the patient. Considering this, the present article aims to provide a review of the empirical research on who self-injures and why, and how people self-injure. Developmental aspects of NSSI behaviours (including

short-term and long-term outcomes), assessment of NSSI, and treatment options are discussed.

Who self-injures?

Although international variation exists, evidence suggest that around 7% of pre-adolescents (Hilt, Nock, Lloyd-Richardson, & Prinstein, 2008), 14-46% of adolescents (Brunner, Kaess, & Parzer, 2013; Darche, 1990, DiClemente, Ponton, & Hartley, 1991; Lloyd-Richardson, Perrine, Dierker, & Kelley, 2007; Ross & Heath, 2002), 12-20% of young adults (e.g., Gollust, Eisengerg, & Golberstein, 2008; Whitlock et al., 2006) and 1-6% of adults (Klonsky & Olino, 2008; Klonsky, 2011) report having self-injured at least once. These figures are presented in Table 1. At present, it is not known whether the lower lifetime occurrence of NSSI in adults reflects an increase in NSSI among recent cohorts of adolescents or reporting biases among adults.

One of the most salient themes to emerge from the literature is that there is no one "self-injurer". Although most research finds adolescent and adult females to be 1.5-3 times more likely to self-injure (Purington et al., 2009; Whitlock et al., 2006), other research suggests that the gender-gap may be smaller (Heath, Toste, Nedecheva, & Charlebois, 2008). In terms of methods, females are more likely to use cutting, whereas males are more likely to use self-hitting or burning (Andover, Primack, Gibb, & Pepper, 2010; Klonsky & Muehlenkamp, 2007).

Findings in relation to ethnicity are also inconclusive. While some studies suggest that Caucasians are more likely to self-injure (Muehlenkamp & Guttierez, 2007), others show similarly high rates in minority groups (e.g., Laye-Gindhu & Schonert-Reichl, 2005; Whitlock & Knox, 2007). There is some evidence to suggest that rates of NSSI may be elevated among those who report exclusive same-sex attraction and some same-sex attraction

(Whitlock et al., 2006). Those reporting bisexual or questioning sexual orientation statuses may in particular be more likely to engage in NSSI (Whitlock et al., 2006, 2011).

Aetiology

Most individuals who self-injure begin to do so during early to mid-adolescence, with an average age of onset between 12 and 16 years of age (Muehlenkamp & Guttierez, 2007; Nock & Prinstein, 2004; Whitlock et al., 2006). In a US study examining NSSI in university students, about 5% of students sampled indicated that their NSSI started before they were 10 years of age (Whitlock et al., 2006).

NSSI is a complex and multi-determined behaviour that is influenced by a wide range of general factors that contribute to problems regulating one's emotional/cognitive state or influencing one's social environment (e.g., negative childhood experiences, genetic predispositions to high emotional reactivity, poor interpersonal communication) and by specific factors (e.g., social modelling, implicit identification, desire for self-punishment) that influence the decision to use NSSI (Nock, 2009, 2010).

Some healthcare professionals have been noted to take for granted that self-injurers have experienced child abuse, especially child sexual abuse (CSA), and that abuse leads to the development of NSSI. However, a recent review which aggregated results from 43 studies found the relationship between CSA and NSSI to be modest (Klonsky & Moyer, 2007). The authors of this review concluded that although CSA may play a role in NSSI for some people, many people who have been abused do not go on to self-injure, and many people who self-injure have not experienced abuse.

Although psychological difficulties are not infrequent mong individuals who self-injure, the presence of NSSI does not imply the presence of any particular diagnosis. Considerable research suggests that individuals who self-injure are diagnostically heterogeneous and may experience a range of psychological disorders (Klonsky & Olino,

2008; Nock et al., 2006). Furthermore, in contrast to conventional wisdom, anxiety may be more strongly related to self-injury than depression (Klonsky, Oltmanns, & Turkheimer, 2003). One speculation is that anxiety is more closely related to the emotional arousal or pressure that often prompts NSSI (Nock, 2010).

What is the Relationship between NSSI and Suicide?

The relationship between NSSI and suicide behaviours is complex, and only beginning to be understood (Dhingra, Boduszek, & Klonsky, in press). Although NSSI and suicidal behaviour are both forms of self-injurious behaviour, these behaviours have been differentiated on the basis of intention, frequency, and lethality (Guertin, Lloyd-Richardson, Spirito, Donaldson, & Boergers, 2001; Muehlenkamp & Gutierrez, 2007). Importantly, however, the differences between NSSI and attempted suicide do not preclude their co-occurrence. Indeed, NSSI and suicidal behaviours are often found to co-occur (Dhingra, Bodusezek, & Klonsky, 2015; Dhingra. Boduszek, Palmer, & Shevlin, 2014; Klonsky, 2011; Victor, Styler, & Washburn, 2015). Research indicates that as many as 40% of those who engage in NSSI have thoughts about suicide while inflicting the injury (Klonsky & Olino, 2008) and approximately 50-70% of people who injure themselves have attempted suicide at least once during their lifetime (Muehlenkamp & Gutierrez, 2007; Nock et al., 2006).

A growing body of literature suggests that NSSI may also be an especially important risk factor for suicidal behaviour. Klonsky, May, and Glenn (2013) found NSSI to be more strongly associated with a history of suicide attempts than other established risk factors for suicide, such as depression, anxiety, impulsivity, and Borderline Personality Disorder (BPD). Further, there is accumulating longitudinal evidence that NSSI predicts future suicide ideation and attempts beyond the effects other risk factors (Asarnow, Porta, & Spirito et al., 2011; Bryan & Bryan, 2014). Preliminary research has identified that self-injurers who report being repulsed by life, having greater amounts of apathy, self-criticality, fewer connections to

family members, and greater fearlessness about death are more likely to attempt suicide (Muehlenkamp & Gutierrez, 2007). Consequently, it is essential to routinely assess the intent or motivation underlying an individual's NSSI as well as any underlying psychopathology.

Little attention has been paid as to why NSSI and suicidal behaviour may be associated. However, it is possible that there is something specific about NSSI that may increase suicide risk. Joiner (2006) theorises that some suicidal individuals acquire the capacity to engage in suicide by engaging in increasingly severe NSSI over time.

Why do people self-injure?

NSSI most commonly serves to (temporarily) alleviate overwhelming negative emotional states. Intense negative affect (e.g., anger, anxiety, frustration) precedes NSSI, and engagement in NSSI results in reduced distress as well as feelings of calm and relief (Klonsky, 2007). Slightly more than one-half of individuals report that they self-injure as a form of self-directed anger or self-punishment, suggesting that self-criticism has a causal role. NSSI can also serve to influence others (i.e., by increasing social support or removing undesired social demands) or to produce a physical sign of emotional distress in a minority of individuals who self-injure (Klonsky, 2007).

Because NSSI has been found to typically serve multiple psychological functions (Klonsky, & Glen, 2009; Whitlock et al., 2008), identifying functions relevant to a particular individual can inform treatment. For example, a focus on emotion regulation skills may be most appropriate when NSSI is primarily used to cope with negative or overwhelming emotions. When interpersonal functions are more evident, treatment may be more appropriately focussed on developing interpersonal-effectiveness skills and alternative ways of responding to the interpersonal situations prompting use of this behaviour. The functions of NSSI can also inform treatment in other ways. A recent study found that self-injurers endorsing emotion-regulation functions of their behaviour (e.g., to stop bad feelings, to feel

relaxed) were more likely to have made a recent suicide attempt and feel hopeless (Nock & Prinstein, 2005).

Once someone has tried NSSI as a form of coping or self-regulation, they are likely to continue for a number of reasons. A primary reason that people continue is for them, self-injury works; it regulates or improves emotional and/or social experiences. For example, NSSI can be psychologically reinforcing through the experience of relief from distress. NSSI may also be socially reinforcing through the responses that are (purposefully or inadvertently) elicited by the behaviour.

Clinical presentation and assessment

Although common among adolescents and young adults, NSSI often goes undetected in healthcare settings such as A&E departments. Nurses are, however, uniquely positioned to assess for NSSI since injuries or scars may be visible. Arms, hands, and forearms opposite the dominant hand are common sites of injury, as are the legs and stomach. However, evidence of self-injurious acts can and do appear anywhere on the body. Other signs of NSSI include inappropriate dress for the weather (e.g., wearing long sleeves in hot temperatures), numerous 'accidents', wearing of jewellery or wrist bands/coverings, reluctance to participate in activities that require less body coverage (e.g., swimming), and frequent plasters/bandages. It is important that questions about the marks be non-threatening and emotionally neutral.

Developing a trusting relationship, conveying a sense of respect and a non-judgemental attitude are important when dealing with a patient with a NSSI history (Walsh, 2006). In the absence of good rapport, individuals may minimise the frequency or severity of their behaviour, or offer social acceptable reasons for engaging in NSSI. Being judgemental and conveying a negative attitude (e.g., disapproval or disappointment) about the behaviour might discourage the patient from being open and honest during assessment. At the same time, excessive expressions of support are discouraged, as they may be perceived as

pardoning or even encouraging NSSI (i.e., secondary reinforcement). If NSSI is detected, nurses should explore and address:

- Infection risk: wounds should be assessed for signs infection. In cases where wounds are not yet healed, a discussion of how to care for wounds is advised.
- NSSI severity: Most injuries caused by NSSI are superficial and do not require medical treatment (Nock, Prinstein, & Sterba, 2009). Typically, lifetime frequency of NSSI in combination with the number of methods used and the likelihood that the methods used will cause severe tissue damage is directly and positively associated with risk of adverse outcome, such as suicidal behaviours (Kerr, Muelenkamp, & Turner, 2010). High-severity cases (>50 lifetime episodes or more than one self-injury episode in a day, injury in the past 6 months, use of methods likely to inflict high tissue damage, and/or use of multiple methods [3 or more], younger age of onset [below 12]) warrant thorough assessment of existing support (both familial and professional) and referral if found inadequate or lacking. This is particularly true in instances where NSSI is used to manage or prevent suicidal thoughts and behaviours.
- Support system: Has the individual disclosed their NSSI to anyone? If so, how supportive are they? Is the individual currently undergoing psychological therapy? If not, referral may be warranted—particularly for high-severity cases (see above).
- Comorbid mental health difficulties or maladaptive behaviour (disordered eating, substance use, depression, anxiety, posttraumatic stress disorder, symptoms of BPD, and substance abuse). Presence of one or more of these among self-injurers is common and may increase suicide risk (e.g., Muehlenkamp, Ertelt, Miller, & Claes, 2011; Whitlock et al., 2006).
- Suicide risk: Although NSSI is not a suicidal gesture; it can indicate the presence of suicidal thoughts and should prompt an assessment of risk. Features of NSSI that may

indicate elevated suicide risk include having a long-standing history of NSSI, use of multiple NSSI methods, a lack of experienced pain at the time of NSSI, and greater endorsement of intrapersonal functions for NSSI such as emotion regulation (Klonsky & Glenn, 2009; Nock et al., 2006). An individual's social context during NSSI is also important to understanding suicide risk. Specifically, individuals who self-injure in isolation are more likely to experience suicidal behaviour (thoughts, plans, and attempts) than those who self-injure occasionally or frequently in the presence of others (Glenn & Klonsky, 2009).

Myths about NSSI

NSSI is a suicide attempt or failed suicide attempt. Research into the underlying motivations for NSSI highlights important distinctions between those attempting suicide and those who self-injure. Many studies also find that NSSI is often undertaken as a means of avoiding suicide (Klonsky, 2007).

NSSI primarily functions to elicit attention or reactions from others. For some, NSSI is an attention-seeking act. In such cases, it is important to honour the intent – if someone is injuring him/herself for attention, then she/he clearly needs it. Indeed, Nock (2008) suggests that this behaviour may represent a high intensity social signal used when less intense communication strategies have failed (e.g., speaking, yelling, and crying). Most people that self-injure, however, go to great extremes to conceal their behaviour and associated injuries; and for them, NSSI is a way to quickly alleviate intense negative emotions (Klonsky, 2007).

NSSI is a symptom of mental illness including Borderline Personality Disorder (BPD): Although NSSI has been categorized exclusively as a criterion of BPD since the third edition of the DSM (APA, 1980), numerous studies have shown that NSSI occurs in individuals who do not meet the criteria for a psychiatric diagnosis (Nock et al., 2006). For this reason, DSM-5 has classified NSSI as its own diagnostic entity for further study (American Psychological

Association, 2013). Recent research offers supports this conceptualisation, finding that: (a) the co-occurrence between NSSI disorder (criteria can be found at www.dsm5.org) and BPD is moderate and similar to co-occurrence of BPD with mood and anxiety disorders, and (b). NSSI disorder is associated with clinical impairment (internalising disorders and bulimia nervosa) over and above a diagnosis of BPD (Glenn & Klonsky, 2013).

People who self-injure enjoy the pain or they can't feel it. NSSI most often hurts. Sometimes feeling the pain is the whole point – a person may self-injure to reconnect with his/her body or just to feel something (Klonsky, 2007).

Management

The National Institute for Health and Clinical Excellence (NICE, 2004) guidelines recommend that all individuals under the age of 16 presenting with self-harm (self-injurious behaviour irrespective of intent) should be admitted to a paediatric unit overnight and be assessed by a child and adolescent mental health specialist. There are, however, no rigorous Randomised Control Trials showing that inpatient admissions reduce the risk of subsequent self-harm. Moreover, some individuals may increase their self-harm behaviour once placed into inpatient care (Huey, Henggeler, & Rowland et al., 2004). If inpatient treatment is deemed necessary, planning for discharge should start at the point of admission and contingencies should be examined to strengthen reinforces for alternatives to NSSI. Prior to discharge to the community linkage to outpatient treatment should be made.

No current treatment for NSSI qualifies as empirically supported, efficacious, or well established (Nock, 2010). However, the most promising approaches include dialectical behaviour therapy, emotion-regulation group therapy (ERGT), manual-assisted cognitive therapy (MACT), dynamic deconstructive psychotherapy, atypical antipsychotics (aripiprazole), naltrexone, and selective serotonin reuptake inhibitors (with or without cognitive-behavioural therapy) (Turner, Austin, & Chapman, 2014). Turner and colleagues

caution, however, that current knowledge is insufficient and more trials are needed to investigate treatment efficacy for NSSI.

Conclusions

NSSI is a common practice among adolescents and young adults, and nurses are uniquely positioned to detect its presence, assess its severity, and assist individuals in caring for wounds and in seeking psychological treatment. Based on our review, we conclude that a promising way to approach NSSI is by trying to understand the behaviour from the individual's perspective. Careful assessment of the functions served by the behaviour and the factors underlying behavioural engagement can provide an insightful guide for treatment. The key to effectively treating NSSI lies in the ability to form an empathic, non-judgmental relationship with the individual, which may be facilitated by the use of a low-key, dispassionate and respectful curiosity.

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Table 1: Rates of Non suicidal Self Injury as reported in research Studies

Category	Percentage
Pre Adolescents	7%
Adolescents	14-46
Young Adults	12-20%
Adults	1-6%