Self-Injurious Behavior as a Separate Clinical Syndrome

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The field of clinical psychology may benefit from adopting a deliberate self-injury syndrome as a distinct disorder for representation in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.; American Psychiatric Association, 2000). The phenomenological and empirical data supporting a deliberate self-injury syndrome are reviewed, and arguments for and against the adoption of a distinct syndrome are explored.

Superficial/moderate self-injurious behaviors (SIBs) are characterized as repetitive, low-lethality actions that alter or damage body tissue (e.g., cutting, burning) without suicidal intent (Favazza & Rosenthal, 1993). Superficial/moderate SIBs have a unique set of symptoms, are viewed as a type of morbid self-help, and are exhibited by individuals with and without various mental disorders. For many years, superficial/moderate SIB was viewed solely as an associated symptom of borderline personality disorder (BPD). However, an increasing number of studies have noted the existence of superficial/moderate SIB among individuals without BPD (e.g., Briere & Gil, 1998; Chelminski & Zimmerman, 2003; Klonsky, Oltmanns, & Turkheimer, 2003; S. Ross & Heath, 2002), which suggests that it may be a unique behavioral disturbance or separate clinical syndrome (Favazza & Rosenthal, 1993; Graff & Mallin, 1967; Kahan & Pattison, 1984).

Clinical interest in SIB has been increasing slowly over the past 20–30 years, partly in response to the media's attention to the behavior (Favazza, 1998). The first formal attempt to describe and explain such behavior was Menninger's (1938) discussion of self-injury in his book *Man Against Himself*, in which he proposed that SIB is an action to avert suicide and promote self-healing. Since Menninger's time, few empirical studies have emerged regarding SIB; thus, the clinical field still lacks a solid understanding of the behavior. Part of the difficulty in understanding SIB lies with the inability of clinicians and researchers to agree on a single term and definition of the behavior. Over 33 terms have been used to represent SIB (Favazza, 1996; R. R. Ross & McKay, 1979), some of which include suicidal behaviors and indirect forms of self-harm, such as risk taking, promis-

cuity, and drug abuse, in their definition. This inability to agree on terminology complicates research on SIB and is one reason why the adoption of SIB as a separate clinical syndrome would be useful. Despite suggestions from prominent researchers and strong agreement within the literature regarding the characteristic and phenomenological features of SIB, the clinical field has yet to recognize a self-injury syndrome. Therefore, the purpose of this article is to describe SIB in terms of its diagnostic features and to elaborate on the debate regarding whether SIB is a distinct clinical syndrome.

Diagnostic Features of Superficial/Moderate SIB

The key feature of SIB is a preoccupation with physically hurting oneself that is devoid of conscious suicidal intent, often resulting in damage to body tissue (Favazza & Rosenthal, 1993; Simeon & Favazza, 2001). Associated with the preoccupation to harm oneself is the inability to resist or delay the impulse once the decision to self-injure has been made (Favazza & Conterio, 1989). However, Favazza (1992, 1996) mentioned that an individual may brood about the self-injury for hours or days and may also engage in rituals around the act, such as tracing the site of injury or laying out the materials required for the self-injury. Despite prolonged brooding or ritualistic actions, the act of SIB is almost always the end result (Favazza, 1996; Walsh & Rosen, 1988). Typical methods of self-injury include cutting, burning, hitting, severe skin scratching, and interfering with wound healing (Favazza, 1998; Favazza & Conterio, 1988; R. R. Ross & McKay, 1979; Walsh & Rosen, 1988), and most self-injurers report using multiple methods (Favazza, 1992; Favazza & Conterio, 1988; Osuch, Noll, & Putnam, 1999). The most common locations for injury are the arms, legs, chest, and other areas on the front of the body (Favazza, 1996; R. R. Ross & McKay, 1979),

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presumably because these areas are the easiest to access. It is also common for an individual who engages in repetitive acts of SIB to identify himself or herself as a cutter or burner (Favazza, 1992, 1996; Walsh & Rosen, 1988), establishing a sense of unique identity as a result of his or her behavior. Adopting an identity as a cutter or burner is thought to be indicative of a more severe level of pathology associated with the SIB.

For most individuals who engage in SIB, preceding the act of self-injury is a psychological experience of increasing tension, anger, anxiety, dysphoria, general distress, or depersonalization, which the person feels he or she cannot escape from or control (Kahan & Pattison, 1984; Simeon & Favazza, 2001). Hurry (2000) stated that the actual precipitating events are often of a trivial nature yet mask more fundamental problems. Research suggests that the precipitants for SIB are multidetermined (Favazza & Rosenthal, 1993); however, all tend to share a theme of real or perceived rejection or abandonment and include a stressful situation. Other common precipitants are situations that cause feelings of helplessness, anger, or guilt in the individual (Favazza & Rosenthal, 1993; Suyemoto, 1998). Predisposing risk factors for SIB include a history of physical or sexual abuse, physical illness or surgery at a young age, perfectionism, dissatisfaction with the body, and parental alcoholism or depression (Briere & Gil, 1998; Favazza & Rosenthal, 1993; Walsh & Rosen, 1988).

The act of SIB is often a response to increasing tension or distress and is subsequently followed by an immediate sense of relief, gratification, and/or release from depersonalization (Favazza, 1996; R. R. Ross & McKay, 1979; Simeon & Favazza, 2001). It is also common for individuals to report that they do not experience any pain during the act of self-injury (Favazza, 1992; Favazza & Conterio, 1989; Walsh & Rosen, 1988). Researchers have argued that, for the SIB to be considered repetitive and potentially indicative of its own syndrome, an individual must have engaged in five or more acts of nonsuicidal self-injury (Favazza & Rosenthal, 1990; Graff & Mallin, 1967). According to the research, individuals who do engage in repetitive self-injury report self-injuring an average of 50 times, although some individuals report over 400 independent acts of SIB (Favazza & Conterio, 1989; R. R. Ross & McKay, 1979).

Although there is no true consensus regarding the etiology of SIB nor a theory that can account for the heterogeneity of SIB (Favazza, 1989b; Zila & Kiselica, 2001), there are some consistent findings regarding the functions and motivations behind the

behavior. It appears that SIB serves multiple functions, often simultaneously (Suyemoto, 1998), which may account for the persistent, powerful effect it has. In a study of 240 self-injurers, Favazza and Conterio (1989) found that the majority of the individuals self-injured to control racing thoughts, to release tension and relax, to feel less depressed or lonely, to stop dissociation, and to punish themselves. On the basis of this and similar reports, Osuch et al. (1999) created the Self-Injury Motivation Scale (SIMS) in an attempt to identify the primary motivations behind SIB. The authors administered the SIMS to 99 inpatients with a history of self-injury. Six factors emerged, accounting for 85% of the variance. The factors reflected motivations consistent with affect modulation, management of overwhelming experiences, punishment, influencing or controlling others, and self-stimulation. These findings are consistent with other studies reporting that the most common reasons for SIB are to regulate or express affect, relieve tension, manage dissociation, feel a sense of control, and influence others (Andover, Pepper, Gibb, & Lynn, 2003; Favazza, 1989b; Suyemoto, 1998). A study conducted by Suyemoto and MacDonald (1995) suggests that models explaining SIB as an expression of overwhelming affect, an attempt to control affect, an attempt to stop depersonalization, or an attempt to create a boundary and sense of identity are the most accurate and useful therapeutically. Therefore, it appears that a consensus is emerging regarding the basic functions and motivation underlying self-injurious behaviors, but it is still unknown whether the different functions and motivations can classify different types of self-injurers.

Associated Features and Disorders of SIB

Individuals who engage in SIB frequently report an inability to express their feelings (Favazza & Conterio, 1989), and studies have found that measures of alexithymia (e.g., an inability to identify and describe emotions) significantly correlate with SIB (Zlotnick et al., 1996). However, individuals who engage in SIB do report feeling helpless or hopeless (Darche, 1990) in addition to feeling empty inside and not understood by others (Favazza & Conterio, 1989). They often have low self-esteem, and some report feeling scared when they become close to others (Favazza, 1989a; R. R. Ross & McKay, 1979; Walsh & Rosen, 1988). Suicidal ideation and subsequent attempts, often through a different method than the self-injury, are also somewhat common (Diekstra, 1989; Favazza, 1996; Pattison & Kahan, 1983; Stan-

ley, Winchel, Molcho, Simeon, & Stanley, 1992; Walsh & Rosen, 1988). Many self-injuring individuals also report experiencing body alienation or body dissatisfaction, and some report being disgusted with their genitals and/or sexuality (Cross, 1993; Walsh & Rosen, 1988).

Along with these features, some research suggests that individuals who self-injure are overly impulsive and aggressive and may struggle with other impulse-related disorders (Favazza, 1998). Simeon et al. (1992) reported a significant correlation between SIB and measures of impulsivity. Other studies of self-injurers have found that 70%–78% reported feeling they have no control over the act and that the decision to self-injure is impulsive (Bennum, 1983; Favazza & Conterio, 1989). Conversely, Darche (1990) found no significant differences in impulsivity between self-injurers and nonself-injurers. Researchers have also suggested that individuals who self-injure have greater amounts of anger, aggression, and hostility (S. Ross & Heath, 2003; Simeon & Favazza, 2001). However, many studies proposing this relationship were conducted with incarcerated individuals and may not pertain to general samples. Last, there is growing evidence that people who engage in SIB have a history of trauma. The most common traumas are major surgery in childhood, physical and/or sexual abuse, and sexual assault (Briere & Gil, 1998; Darche, 1990; Favazza & Conterio, 1989; Greenspan & Samuel, 1989; Walsh & Rosen, 1988; Zlotnick et al., 1996).

Self-injury has primarily been associated with a diagnosis of BPD (Favazza, 1996; Linehan, 1993; Suyemoto, 1998; Walsh & Rosen, 1988) but is also a common feature of eating disorders, although it is not listed as an associated symptom. Studies have found that roughly 50%–60% of individuals who engage in SIB report having or having had an eating disorder (Darche, 1990; Favazza & Conterio, 1989; Favazza, DeRosear, & Conterio, 1989). Clinicians report that when one behavior ceases (either the SIB or the eating disorder) the other emerges, which suggests that these two behaviors may be closely related or even different manifestations of similar underlying problems (Cross, 1993). Acts of SIB have been associated with other disorders as well, including post-traumatic stress disorder (Favazza, 1996; Greenspan & Samuel, 1989; Pitman, 1990), depressive disorders (Kahan & Pattison, 1984; S. Ross & Heath, 2002), obsessive–compulsive disorder (Yaryura-Tobias, Neziroglu, & Kaplan, 1995), and substance abuse disorders (Favazza & Conterio, 1989; Zlotnick, Mattia, & Zimmerman, 1999).

Biological Features

There are only a handful of studies exploring the biological underpinnings of SIB. Most of these studies have used samples of individuals with BPD, so it is unknown whether the results generalize to SIB in nonborderline individuals. Also, most of the information gathered regarding the biology of SIB has been extrapolated from biological studies of impulsivity and aggression; thus, the following discussion should be interpreted with these cautions in mind.

Research has implicated the serotonergic and endogenous opioid systems as the primary contributors to SIB. Specifically, there is evidence suggesting that low levels of serotonin are associated with SIB (Favazza, 1996; Grossman & Siever, 2001). However, other studies have failed to find a relationship between SIB and serotonin (Coccaro, Astill, Szealey, & Malkowicka, 1990). The strongest evidence in support of the serotonin dysfunction hypothesis is the strong correlations found between low levels of serotonin and impulsivity, aggression, and suicidality. Additionally, some success has been achieved in reducing SIB with the use of selective serotonin reuptake inhibitor medications (Grossman & Siever, 2001). The endogenous opioid system has been implicated because of the analgesia that individuals experience during the act of self-injury along with the subsequent high many experience following the SIB. Studies that used naloxone, a drug that reverses the effects of endogenous opioids, to treat SIB have experienced mixed success (Grossman & Siever, 2001; Roth, Ostroff, & Hoffman, 1996; Russ, Roth, & Kakuma, 1994). Thus, the role biology plays in SIB is still unclear.

Prevalence and Course of SIB

Estimates of SIB have ranged from 400 to 1,400 cases per 100,000 annually (Favazza, 1998; Pattison & Kahan, 1983). It is estimated that 4.3%–20% of adult psychiatric inpatients have a history of SIB (Briere & Gil, 1998; Favazza, 1998), and this estimate escalates to 40% for adolescent inpatients (Darche, 1990; Hurry, 2000). Only a handful of studies have estimated the prevalence of SIB within community samples, and there is evidence suggesting that the incidence of SIB is increasing, particularly among adolescents (Hawton, Fagg, & Simkin, 1996; Hawton, Fagg, Simkin, Bale, & Bond, 1997). Increases in SIB have also been noted among college students. For example, Favazza et al. (1989) reported that 12% of university students reported SIB, whereas Gratz (2001) recently found that 35% of college students

reported engaging in at least one incident of SIB. Among community samples of adolescents, estimates of SIB have ranged from 2.4% to 20% (Diekstra, Keinhorst, & DeWilde, 1995; Martin, Rozanes, Pearce, & Allison, 1995; Patton et al., 1997; S. Ross & Heath, 2002). All of the prevalence estimates must be interpreted with caution because of the limited number of studies. It is also likely that these estimates are low, because SIB produces wounds most individuals can care for by themselves. Therefore, few who self-injure are actually detected by formal methods.

It has been widely believed that women are more likely to engage in SIB than are men; however, recent research indicates mixed findings regarding gender prevalence rates. Within psychiatric samples, many researchers continue to report a higher percentage of women engaging in SIB (e.g., Zlotnick et al., 1999), although many samples include women with BPD, which may distort true prevalence rates because BPD occurs more often in women. Other researchers have reported an equal prevalence of SIB among men and women within both psychiatric (Stanley, Gameroff, Michalsen, & Mann, 2001; Nijman et al., 1999) and nonclinical samples (Briere & Gil, 1998; Gratz, 2001). Thus, it appears that SIB may be equally prevalent among men and women, but more research is needed before strong conclusions can be made.

Self-injurious behavior typically begins during adolescence, around the age of 13 or 14 years (Favazza, 1998; Favazza & Conterio, 1988; S. Ross & Heath, 2002; Walsh & Rosen, 1988). The SIB tends to persist for an average of 10 to 15 years, although it may continue for decades (Favazza, 1998; Simeon & Favazza, 2001). Many people who self-injure stop on their own as they mature (Walsh & Rosen, 1988); however, some need clinical intervention to assist them. There is evidence suggesting that, as the problem persists, the SIB becomes more frequent and intense and may lead to accidental death (Favazza, 1998; Favazza & Rosenthal, 1993). Therefore, it is important to identify the behavior early on, with the ultimate goal being stopping the behavior and preventing reoccurrence.

The Self-Injury Syndrome Debate

It appears that self-injurious behavior could be represented within the *Diagnostic and Statistical Manual of Mental Disorders (DSM; e.g., 4th ed., text rev.; American Psychiatric Association [APA], 2000)* as an independent entity, because there is a prominent symptom pattern and a relatively clear presentation of biological and associated features (e.g., age of onset, precipitants, course). Many researchers and

clinicians have argued for the adoption of a self-injury syndrome. One of the earliest efforts to describe a syndrome of self-injury was made by Graff and Mallin (1967) and then echoed by Pao (1969) and Rosenthal, Rinzler, Wallsh, and Klausner (1972). These researchers described a syndrome of self-cutting; however, their efforts failed because of the limited amount of research and the fact that they included suicide attempts in their definitions of the syndrome.

As additional research was conducted and epidemiological data became available, researchers tried once again to argue for the existence of a self-injury syndrome. Kahan and Pattison (1984) conducted a thorough review of the existing literature, concluding that there was “enough clinical data to identify a diagnostic entity” (p. 17), which they termed the deliberate self-harm syndrome (DSH). One of the strengths of the proposed DSH was that it was based on Pattison and Kahan’s (1983) differential classification of various forms of self-harm, which distinguished SIB from suicide, making it easier to identify which behaviors constitute DSH. Shortly after the proposal of DSH, Favazza and Rosenthal (1990) began to encourage the adoption of a repetitive self-mutilation syndrome, describing it as an impulse control disorder. Since that time, Favazza (1996; Favazza & Rosenthal, 1993) has refined the description of the proposed disorder and continues to report evidence supporting its existence. Despite these efforts to delineate a self-injury syndrome, the *DSM* has essentially ignored the existence of an independent self-injury disorder (Simeon & Favazza, 2001). Therefore, the debate surrounding whether SIB constitutes a distinct clinical syndrome continues.

The SIB–Suicide Continuum Argument

One argument against the adoption of a self-injury syndrome is that SIB exists along the same continuum as do suicidal behaviors, with SIB representing a lesser form (Linehan, 2000; Stanley et al., 1992). This argument is clearly reflected within the number of terms that have been used to describe SIB in relation to suicide, such as *partial suicide* and *para-suicide*. In addition, early psychologists viewed SIB as a form of attenuated suicide in which the destruction of a specific, limited area of the body worked to prevent the destruction of the entire self (Menninger, 1938). Research has also found that 28% to 41% of individuals who engage in SIB report having suicidal thoughts at the time of the self-injury (Favazza, 1996; Pattison & Kahan, 1984). Stanley et al. (1992) estimated that 55% to 85% of self-injuring individuals

have a history of at least one suicide attempt, and individuals who self-injure are at a heightened risk for suicide (Diekstra, 1989; Favazza, 1996; Walsh & Rosen, 1988). Last, in a study of 53 self-injuring inpatients with BPD, Stanley et al. (2001) found that there were no differences in suicidal ideation, suicidal intent, or the number of suicide attempts made between the self-injuring and nonself-injuring borderline inpatients. These data appear to suggest that SIB is not different from suicide; however, Stanley et al.'s results are confounded by the diagnostic characteristics of their sample.

Although there is evidence to suggest that SIB is similar to suicide, there is ample evidence and agreement among the premier researchers in this area that SIB is, in fact, distinct from suicide. R. R. Ross and McKay (1979) described SIB as being "counterintentional to suicide" (p. 15), and M. A. Simpson (1980) proposed that SIB is a type of antisuicide that, in actuality, produces feelings of being alive. In fact, some individuals who engage in SIB do report using their self-injury to avert suicide and to stay alive (Favazza, 1996). On a phenomenological level, most who engage in SIB make a cognitive distinction between their self-injury and suicide (Favazza, 1996; C. A. Simpson & Porter, 1981), and most do not perceive death as a likely consequence of their self-injuring actions (Patton et al., 1997). Within non-clinical samples of adolescents, Muehlenkamp and Gutierrez (2004; Muehlenkamp, Swanson, & Gutierrez, 2003) have found significant differences between self-injurers and suicide attempters on levels of depression, suicidal ideation, and attitudes toward life. Self-injurers reported fewer depressive symptoms and lower levels of suicidal ideation and had more positive attitudes toward life. These findings support an empirical and phenomenological distinction between SIB and suicide.

Additional support for the distinction between SIB and suicide comes from extrapolations from research reporting on suicidal ideation and behavior among individuals who self-injure. It can be estimated that approximately 59%–72% do not have suicidal thoughts at the time of the SIB and that 15%–45% of self-injurers do not have a history of suicide attempts. These data suggest that SIB is separate from suicide among a large proportion of self-injurers. Of those who do attempt suicide, Favazza (1992) argued, the suicide attempt is often in response to the person's inability to control his or her SIB, which is phenomenologically different from the motivations behind the SIB. Also, research has demonstrated that when individuals who self-injure attempt suicide, they do so through different means than their self-injury, most frequently in the form of an overdose (Diekstra, 1989; Favazza & Rosenthal, 1993; Stanley et al., 2001).

Researchers have also differentiated suicide from SIB on a variety of features, such as intent, lethality, chronicity, and methods used (Kahan & Pattison, 1984; Morgan, 1979; O'Carroll et al., 1996; Walsh & Rosen, 1988). As discussed earlier, SIB is used to feel better, is repetitive in nature, consists of low-lethality behavior, and tends to include the use of multiple methods. By contrast, suicide is used to cease living, it occurs infrequently, the lethality is high, and, in most cases, only one method is used. There are clear differences between the two behaviors in terms of the reactions they evoke from others, the cognitions reported during the act, the aftermath, the demographics, and the prevalence rates (see Table 1). People are also treated much differently by medical and mental health professionals depending on how the behavior is described (e.g., as suicidal or self-injurious; Walsh & Rosen, 1988). Therefore, SIB appears to be psychologically and phenomeno-

Table 1
Differentiation Between Suicide and Self-Injurious Behavior

Feature	Suicide	Self-injurious behavior
Intent	To cease existence, eliminate life	To avoid or remove distress, to feel better
Lethality	High, requires medical attention	Low, rarely requires medical attention
Chronicity	Infrequent	Repetitive in nature, chronic (10–15 years)
Methods	Often one chosen method	Tendency to use multiple methods
Cognitions	Death, dying, suicidal ideation	Thoughts of relief, no thoughts of death
Reactions	Elicits care, compassion, concern	Elicits fear, disgust, hostility, revulsion
Aftermath	No relief of distress	Sense of relief, calm, satisfaction
Demographics	Usually older men complete	Adolescents, equally boys and girls
Prevalence	10/100,000 deaths/year; 100/100,000 attempts/year	400–1,400/100,000 per year

Note. The information included in the table is based on the literature reviewed as well as information presented by Kahan and Pattison (1984) and Walsh and Rosen (1988).

logically different from suicide. A great risk is taken if SIB and suicide are thought of as similar behaviors, because this forces critical differences to be overlooked, which has important clinical implications for both the treatment and the prevention or cessation of each set of behaviors. It is most effective to view suicide as a potential risk behavior that is associated with a variety of disorders, one of which is a self-injury syndrome.

High Comorbidity Argument

As described earlier, self-injurious behaviors occur consistently across a handful of mental disorders. According to the research, SIB appears to be highly comorbid with BPD and eating disorders (Favazza, 1998). Self-injury is already listed as a diagnostic criterion for BPD, and it is well known that managing the SIB is often the primary goal, at least initially, for treatment (Linehan, 1993). Thus, it is already well established that SIB is a symptom of BPD, although a large portion of borderline individuals do not self-injure.

Some argue that SIB should also be listed as an associated symptom of eating disorders (Alderman, 1997; Favazza et al., 1989). In a theoretical article, Cross (1993) discussed multiple similarities between SIB and eating disorders, concluding that SIB and eating disorders should be viewed as interchangeable coping strategies. Additionally, Cross (1993) and M. A. Simpson (1980) pointed out that both behaviors have similar proposed origins (e.g., trauma or body dissatisfaction) and both serve similar functions, such as providing a sense of control. The high percentage of individuals who report having eating disorders who have also self-injured suggests that these two behaviors are closely associated. Last, from the biological evidence that exists, it appears that SIB is associated with biological dysfunctions similar to those associated with eating disorders and BPD. Therefore, one could conclude that there is little to separate SIB from these disorders to warrant a separate syndrome.

The other side of the argument is just as strong. High comorbidity with a handful of disorders is not sufficient evidence on which to deny the existence of a separate syndrome, because many disorders are highly comorbid. Research suggests that although SIB is highly comorbid with certain disorders, it still has unique features that distinguish it from those disorders. For example, Stanley et al. (2001) studied a group of 53 inpatients diagnosed with BPD. They found that the SIB group had significantly higher depression and hopelessness scores than the non-SIB

group. Similar results were found with a sample of adolescent inpatients with various diagnoses (Darche, 1990), which suggests that there is some empirical distinction between the associated symptoms of SIB and the symptoms of other disorders. Herpertz, Sass, and Favazza (1997) found that if SIB was controlled statistically, of those individuals who self-injured, only 28% actually met the diagnostic criteria for BPD, leaving a large percentage without a primary diagnosis. In addition, Favazza and Rosenthal (1990) reported that once SIB stops, many individuals no longer meet diagnostic criteria for BPD. They argued that the bias within the field to diagnose personality disorders according to the presence or absence of SIB has led to the misperception of SIB as an associated symptom rather than a separate syndrome. Last, studies with community-based adolescents who self-injure have found that many who report engaging in SIB stop doing so within 1 year (S. Ross & Heath, 2002), yet other problems, such as depression, may continue, which suggests that the SIB may be a temporary behavioral dysfunction. There is some evidence to suggest that maturity alone leads to the cessation of SIB (Walsh & Rosen, 1988), and this is not true for many of the other disorders with which SIB is associated. Therefore, it appears SIB can stand on its own as a unique problem.

Limited Research and Other Arguments

Probably the greatest argument for failing to adopt a self-injury syndrome is the lack of good, empirical research. Some feel there are not enough empirical studies on SIB to warrant acceptance of an independent self-injury syndrome. Despite the increase in attention SIB is gaining within clinical research, there is still a paucity of epidemiological studies, although this is slowly changing. In addition, many of the studies to date have been limited by problems of definition, small sample sizes, and samples that were confounded by the use of individuals diagnosed with BPD.

However, these weaknesses could be a sign that a formal description of SIB is needed to further the field, thus warranting the adoption of a self-injury syndrome. One purpose for the creation of the *DSM* was to facilitate communication and to have consistent, descriptive definitions of clinical syndromes. There is enough research to date to provide initial data regarding the epidemiology of SIB as well as to provide an adequate and accurate clinical description of a self-injury syndrome (see Favazza, 1996, 1998). Additionally, there is some preliminary evidence from laboratory studies demonstrating a connection

between physiological dysfunction and SIB (Grossman & Siever, 2001). The adoption of a self-injury syndrome in the *DSM* has the potential for improving the research being conducted on this behavior, because researchers and clinicians would have a clear definition of the problem to study. If professionals are provided with a clear definition, they could collect the data necessary to strongly support the existence of a self-injury syndrome. At the very least, it seems to be in the best interest of the field to adopt a self-injury syndrome for further consideration and exploration.

Another argument for not adopting a self-injury syndrome is the inability of researchers and clinicians to discover the etiology of SIB. A number of theories have attempted to account for the development and cause of SIB but have failed because they do not hold true across the heterogeneous groups of self-injurers. Still, researchers have identified and proposed some developmental risk factors for SIB that appear to be relatively consistent within the various individuals who do self-injure (Favazza, 1996; Favazza & Conterio, 1989; Favazza & Rosenthal, 1993; Walsh & Rosen, 1988). The evidence that the motivations and functions behind SIB are similar despite the heterogeneity of individuals who self-injure and that these motivations or functions are not specific to a particular Axis I or Axis II disorder (Osuch et al., 1999) is indicative of the etiological independence of SIB. This basic understanding of the potential risk factors and underlying dynamics of SIB is enough of a foundation to warrant the inclusion of a syndrome in the *DSM*.

Another reason for adopting a self-injury syndrome is that individuals who self-injure who do not appear to have any other Axis I or Axis II disorders do not fit easily into current diagnostic categories (Darche, 1990; Simeon & Favazza, 2001). The best diagnostic fit to date is impulse disorder, not otherwise specified (Favazza, 1996, 1998). Thus, adopting a self-injury syndrome is clinically useful. Finally, the APA (2000) stated that there are no consistent criteria to determine what does and does not constitute a mental disorder and acknowledged that the existence of a mental disorder is based on a number of criteria (e.g., symptom presentation, deviance from the norm) established through research. Many of these criteria have been met by the research already conducted on SIB, which indicates that SIB could be a distinct clinical entity.

The only other guideline available for determining diagnostic validity is that described by Feighner et al. (1972). Diagnostic validity is accomplished through five phases: clinical description, laboratory (e.g.,

physiological) studies, delimitation from other disorders (e.g., exclusion criteria), follow-up studies of the disorder, and family studies to determine heredity of the disorder. On the basis of these criteria, SIB still warrants consideration and inclusion as a distinct syndrome but may not yet achieve support as a full mental disorder. Specifically, SIB has a relatively clear clinical description of a key symptom and associated symptoms (see the Appendix for a proposed diagnostic description). Recent research provides some initial data regarding the physiological basis of SIB, although more research that excludes individuals with BPD is badly needed. Although there is a high comorbidity of SIB with BPD and eating disorders, research has indicated that the SIB acts independently of these and other disorders. SIB fails to meet the delimitation criteria in that the population of individuals who self-injure is quite heterogeneous. With additional research, it should be easy to establish specific exclusion criteria that will help clarify the disorder.

Self-injurious behavior has yet to be studied longitudinally; thus, follow-up studies are not available to ensure that SIB occurs independently of other disorders. However, some research (Darche, 1990; Favazza & Rosenthal, 1990; Stanley et al., 2001) suggests that SIB does occur and persist despite the presence of other mental disorders. Last, there is no known research to date on familial characteristics and the prevalence of SIB within families to conclude that there is a hereditary basis to SIB. Without this information, the current knowledge base of SIB fails to meet the five diagnostic validation criteria. However, the knowledge we have acquired to date matches the definition of a syndrome, conforms to APA's definition of a mental disorder, and partially fulfills recommended criteria for establishing a mental disorder. On the basis of the existing data and the arguments provided, it seems that a self-injury syndrome should be considered for inclusion in the *DSM* and for further evaluation as a true clinical disorder.

There is convincing evidence that repetitive superficial/moderate SIB should be considered as an independent syndrome and that, with additional research, it may be established as a diagnostic entity. In the face of supportive arguments, it remains important to consider some of the advantages and disadvantages to adopting a self-injury syndrome or clinical diagnosis. Foremost is that having an official and agreed on definition of the behavior will improve the research being conducted on risk factors; biological correlates; and family, social, and demographic features. Additionally, with a clear delineation of the behavior, researchers and clinicians can begin to es-

tablish, validate, and promote effective treatment methods designed to target the specific problem of SIB and its associated problems. Having an established clinical picture of SIB will also ensure that the research is comparable across samples.

Adopting a self-injury syndrome also presents benefits in that SIB would remain a more tentative type of psychological dysfunction, which is useful given its variable course. Adopting a more tentative stance on the problem is also beneficial in that more research can be accumulated to determine whether SIB truly exists independently of other disorders, warranting a clinical diagnosis. However, remaining a syndrome may not give SIB the same level of status other diagnostic disorders receive, which could lead SIB to continue to be confounded with BPD and regarded as a symptom. For this reason, considering SIB as a diagnostic entity in need of more research could prove advantageous. Having a SIB diagnosis ensures that repetitive self-injurious behaviors are considered apart from BPD, which has an additional benefit of reducing the number of self-injuring individuals being stigmatized with a borderline diagnosis. If SIB is associated with the increased status of a true clinical disorder, it is possible that researchers and clinicians may be more likely to devote time to studying the problem. Still, including another diagnostic category in the *DSM* only adds to the complexity of our diagnostic system and presents new challenges in determining primary disorders.

Conclusion

SIB continues to be a perplexing behavior that has proven difficult to study. It is only recently that focused attention has been placed on understanding and treating this problem outside the context of BPD. Research to date suggests that self-injury is common in both psychiatric and nonclinical populations and that it has a number of features that set it apart from suicidal behavior and other mental disorders. Part of the difficulty in researching SIB is the lack of definitional clarity. Adopting a self-injury syndrome would remedy this problem and would probably increase the amount and quality of research being conducted. It is only through continued, focused research that the debate regarding whether SIB is a distinct clinical entity will be resolved.

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Appendix

Proposed Diagnostic Criteria for Deliberate Self-Injury Syndrome

1. There is a preoccupation with physically hurting oneself that is devoid of conscious suicidal intent or ideation.
2. One has an inability to resist the impulse to hurt oneself.
3. Preceding the act of self-injury, there is a psychological experience of increasing tension, anger, anxiety, dysphoria, or general distress, which the person feels he or she cannot escape from or control.
4. There is a sense of relief, gratification, and/or release from depersonalization immediately following the act of self-injury.
5. There is a repetitive pattern of self-injury in which five or more acts of self-injury have occurred (the method of self-injury may vary across injury episodes).
6. The self-injury is not better accounted for as a response to psychosis, transsexualism, mental retardation, developmental disorders, or a general medical condition.
7. The self-injury causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Note. These criteria are based on the literature reviewed as well as adapted from those proposed by Kahan and Pattison (1984), Favazza and Rosenthal (1993), and Simeon and Favazza (2001).

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