

**Proposal to the DSM-V Childhood Disorder and Mood Disorder Work Groups to Include
Non-Suicidal Self-Injury (NSSI) as a DSM-V Disorder**

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I. INTRODUCTION AND RATIONALE

History: Repeated cutting, puncturing, rubbing, burning, or otherwise injuring the skin, preceded by emotional unease or distress and followed by subjective relief was first described as a clinical entity by Menninger (1938). It was formulated as a syndrome by Pattison and Kahan (1983) (who proposed it for inclusion in DSM-IV) and, subsequently, by Favazza and Conterio (1989) and Herpetz (1995). More recently, it was proposed for inclusion in DSM-V by Muehlenkamp (2005). For reasons that are elaborated on below, we are proposing the inclusion of non-suicidal self-injury (NSSI) disorder in DSM-V.

Like many other aspects of psychopathology, the pattern of behavior described above is the subject of published epidemiological, psychological, and treatment research, and is frequently listed in the clinical literature as a focus for diagnosis and treatment. It is prevalent, harmful to the individual (by definition), and associated with significant distress and impairment in functioning. However, its sole presence in DSM-IV is as “self-mutilation,” a symptom of borderline personality disorder (BPD).

This proposal is stimulated, not solely by NSSI’s absence from DSM, but also by misperceptions and problems of a public health and clinical nature that arise because of a lack of clarity about its meaning and significance that we feel could be remediated by adoption.

It is our understanding that previous attempts to include NSSI in DSM were rejected because self-injury was seen as an integral feature of BPD. That position is not supported by systematic surveys that have appeared since the publication of DSM-IV among both adult (Herpetz 1995) and adolescent (Nock et al. 2006) inpatients and both adult (Zlotnick et al. 1999) and adolescent (Jacobson et al. 2008) outpatients. These show that repeated self-injury co-occurs with a variety of diagnoses and that many individuals who engage in repeated self-injury do not meet criteria for BPD.

A more immediate stimulus for its consideration is the frequent perception of the behavior as a failed attempt to commit suicide—despite the fact that the method rarely accounts for successful suicide. In

2005, 0.4 percent of all suicides among those under age 24 and 0.6 percent of all suicides resulted from cutting or piercing (National Center for Injury Prevention and Control 2008).

The problem might have been aggravated by the creation and popular adoption of the broadly defined entity of “self-harm” that has provided a home for a variety of self-injuring behaviors with low lethal potential. While this categorization avoids the clinically challenging (and inherently unreliable) task of judging “intent,” an unwanted result is the creation of a heterogeneous category that is not recognized internationally. The recognition of benign suicidal behavior was not new and had earlier led to the proposal by Kreitman and colleagues (1969) to use the term *parasuicide* to describe seemingly suicidal behavior among patients who, in the opinion of experienced clinicians, had no intent to die. Parasuicide was gradually replaced by the omnibus term “self-harm,” which is now used variously to embrace suicide attempts, non-suicidal self-injury, and, by some, to describe indirect forms of self-harm, such as gambling, substance abuse, etc.

In recognition of this situation of nosological confusion, Herpertz proposed an entity for DSM-IV similar to the one described in this proposal. The absence of an appropriate and narrowly defined category for describing NSSI has, we believe, a negative impact on public health efforts to monitor prevalence, on research, and—most importantly—on clinical practice.

Public Health and Epidemiology: Key benchmark and prevalence studies (e.g., the Youth Risk Behavior Survey [YRBS], NHANES, NCS, etc.) have not differentiated between suicidal and non-suicidal self-injurious behaviors or between behaviors involving different methods, and they have not included questions that would allow such differentiation. It is possible that the absence of this distinction contributes to such phenomena as the very high rate of self-reported suicide attempts in adolescents, among whom the discrepancy in the ratios of suicide attempts to completions approaches 5,000:1 in girls and just under 500:1 in boys. It might also contribute to the different secular trends for suicide ideation in the young—which, like suicide, has generally declined over the past two decades, while the incidence of suicide-attempt behavior has remained unchanged.

The failure to differentiate between suicidal and non-suicidal self-injury also has the potential to impact major policy decisions. Thus, Posner and colleagues (2007) reexamined adverse events reported to the FDA during the course of 25 adolescent antidepressant trials and found that 8 percent of the 114 possibly suicidal events reported by the pharmaceutical companies would have been better classified as acts of NSSI.

Research: The failure to distinguish between NSSI and suicide attempts impacts research activity, so that, in countries where the concept of self-harm is used, large and expansive research studies are mounted in which ingestions, cutting behavior, and other self-inflicted injuries are grouped together, leading to confusion and uncertainty in the field. Recognition of NSSI as a discrete condition is likely to stimulate new ways of looking at and understanding the disorder and to act as a stimulus to innovative research. As long as DSM classifies NSSI only as a symptom of BPD, or as a manifestation of suicidality, researchers will be encouraged to study NSSI only in those contexts, resulting in incomplete or misleading findings.

Clinical Care: However, our most important concern is the potential influence of the present situation on clinical care. If NSSI is only represented in BPD, an individual who repeatedly cuts him- or herself is more likely to be diagnosed as having BPD and might, as a result, be more likely to be referred for DBT (Linehan 1993), which is the optimal treatment for BPD, but which is expensive and, in many areas, difficult to access.

Of greatest concern is that, when repeated cutting is assumed to be a form of attempted suicide (which is common; in one study 88 percent of adolescents who cut said their cutting incident was misinterpreted as a suicide attempt; Kumar et al. 2004), it is likely to lead to overly restrictive management (i.e., emergency evaluation, inpatient hospitalization) that is expensive and burdensome to the patient and the clinician.

II. SUGGESTED CRITERIA FOR NON-SUICIDAL SELF-INJURY DISORDER

- A.** In the last year, the individual has on five or more days, engaged in intentional self-inflicted damage to the surface of his or her body, of a sort likely to induce pain or bleeding or bruising (e.g., cutting, burning, stabbing, hitting, excessive rubbing), for purposes not socially sanctioned (e.g., body piercing, tattooing, etc.), but performed with the expectation that the injury will lead to only minor or moderate physical harm. The absence of suicidal intent is either reported by the patient or can be inferred by reliance on a method that the patient knows, by experience or familiarity, not to have lethal potential. (When uncertain, code with NOS 2). The behavior is not of a common and trivial nature, such as picking at a wound or nail biting.
- B.** The intentional injury is associated with at least two of the following:
- B1. Negative feelings or thoughts, such as depression, anxiety, tension, anger, generalized distress, or self-criticism, occurring in the period immediately prior to the self-injurious act;
 - B2. Prior to engaging in the act, a period of preoccupation with the intended behavior that is difficult to resist. This can last from a very brief time to several hours;
 - B3. The urge to engage in self-injury occurs frequently, although it might not be acted upon; and
 - B4. The activity is engaged in with a purpose; this might be relief from a negative feeling/cognitive state or interpersonal difficulty or induction of a positive feeling state. The patient anticipates these will occur either during or immediately following the self-injury.
- C.** The behavior and its consequences cause clinically significant distress or impairment in interpersonal, academic, or other important areas of functioning.
- D.** The behavior does not occur exclusively during states of psychosis, delirium, or intoxication. In individuals with a developmental disorder, the behavior is not part of a pattern of repetitive stereotypies. The behavior cannot be accounted for by another mental or medical disorder (i.e., psychotic disorder, pervasive developmental disorder, mental retardation, Lesch-Nyhan Syndrome).

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207 **E. *Non-Suicidal Self-Injury Disorder, Not Otherwise Specified (NOS), Type 1, Subthreshold:*** The

208 patient meets all criteria for NSSI disorder, but has injured himself or herself fewer than five times in

209 the past twelve months. This can include individuals who, despite a low frequency of behavior,

210 frequently think about performing the act.

211

212 **F. *Non-Suicidal Self-Injury Disorder, Not Otherwise Specified (NOS), Type 2, Intent Uncertain:***

213 The patient meets criteria for NSSI but insists that in addition to thoughts expressed in B4 also

214 intended to commit suicide.

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III. DISCUSSION POINTS

The proposal and criteria have been widely circulated, and this process has raised the following points

A. *The Criteria*

A1. *Name of the Condition:* We have considered *self-mutilation* and *self-harm*. The term *self-mutilation* is used in the existing borderline-personality-disorder listing. However, the word *mutilation* signifies either the physical loss or loss of use of a body part, whereas, as proposed, NSSI involves the self-infliction of superficial damage without consequent loss of power or anatomy. As noted above, the term *self-harm* is widely used and is applied to both suicide attempts and non-suicidal injuries, as well as, at its broadest, to behaviors or attitudes that carry a risk of eventual loss of resources, such as gambling or substance abuse. It was agreed that using a term free of such broad connotations would be advantageous. *Non-suicidal self-injury* is the term chosen by researchers and practitioners working in this area, and we propose that that name be used.

A2. *Number of Episodes:* There is general agreement that qualification for the disorder should require more than a single episode (as in the example of multiple panic attacks being required to for panic disorder). Ideally, the number of episodes would be determined empirically by examining a range of frequencies against the likelihood of repetition within a fixed time period. We have not found data that would provide that information. However, Dulit and colleagues (1994), examining self-injury in a large group of consecutive patients with BPD, found that patients who had self-injured more than five times were more likely to be in treatment and were more likely to meet criteria for an additional psychiatric diagnosis. We have examined the frequency required for inclusion as a case in different research studies. This ranges from four to six, although, in a single small study, a threshold of ten events was required (Matsumoto et al. 2004). We have identified only one investigator (Brunner 2007) who defined repeated behaviors with respect to occurrence within a specific time period (four or more incidents in the past year). We are proposing a

somewhat less sensitive five events in the last year as a threshold that seems broadly in line with current practice.

A3. *Prior Distress and Relief from Distress:* Almost without exception, investigations into the psychology of NSSI, including those that ask patients *why* they engage in NSSI, have found that negative reinforcement (removal of aversive feelings, tension reduction) is the most commonly reported reason to engage in NSSI, while forms of positive reinforcement (including to elicit attention from others and to experience physical sensations associated with the event) are also commonly cited as important factors (Chapman & Dixon-Gordon 2007; Favazza 1998; Herpertz 1995; Kumar et al. 2004; Laye-Gindhu & Schonert-Reichl 2005; Lloyd-Richardson et al. 2007; Nixon et al. 2002; Nock & Prinstein 2004, 2005; Ross & Heath 2003). Most will report more than one reason for engaging in NSSI, and one study found a positive association between depression severity and the number of reasons for engaging in NSSI (Kumar et al. 2004).

B. *Implications of Overlap with Suicide Attempts:* An important issue here is whether self-injurious behavior of a specific type, i.e., involving cutting or puncturing, although seemingly distinctive in its psychological determinants (i.e., motivation of the person performing the act and the feeling states leading up to the act), is related in a different way to suicide or attempted suicide than self-injurious behavior involving another method, such as an ingestion. One would ideally like to examine data relating method to intent, ideally in an unreferral population. The data that most closely matches that description derives from the Linehan and colleagues' (2006) methodological study of an instrument (the SASII) designed to typify self-injurious behavior, conducted on a clinical sample. The great majority (87 percent) of events mediated by cutting or puncturing were judged to have been non-suicidal or ambivalent attempts.

On the other hand, a number of studies have reported that a high proportion of individuals who engage in the behavior of the sort we have described will also, at some time, engage in what they will term a suicide attempt. The proportion of NSSI individuals who do so is higher in clinical than in

unreferred populations, and, among clinical cases, the rates of suicide attempts are higher in individuals who have tried a variety of NSSI methods (Nock et al. 2006; Zlotnick et al. 1997). The rate of associated attempts in unreferred samples increases with the frequency of past NSSI events (Brunner et al. 2007; Klonsky & Olino 2008; Lloyd-Richardson 2007).

Data on the relationship between NSSI and completed suicide is not available, and we have found no information about how NSSI compares as a risk factor for later suicide with other self-injurious behaviors.

We conclude that NSSI fits within a model of attempted and completed suicide as a somewhat rare complication of a variety of disorders and psychological traits.

There are, to our knowledge, no studies that have shown a relationship between the behavior we have described and completed suicide.

In the light of evidence quoted above, it would be sensible and in keeping with a proposal now being considered by the suicide subgroup of the Mood Disorder Working Party to state in the accompanying text that the presence of this disorder constitutes a risk for attempted suicide and, as such, must be regarded as a condition that carries some undetermined risk for suicide.

C. Placement in the System: A Mood or a Behavior Disorder? In favor of placement as a mood disorder are: 1) The precursor to most NSSI events is a disturbance of mood, often of relatively brief duration. In the only study to have examined this, the nature of the dysphoria is not qualitatively different than the prevailing negative feelings (Herpertz et al. 1995). 2) At least among psychiatric inpatients, a high proportion of patients with NSSI will report having made a suicide attempt—Jacobson et al. 2008 (57 percent); Nock et al. 2006 (70 percent). The suicide attempt rate among those who engage in NSSI in three unreferred samples was 18 percent in a sample of 205 college students (Klonsky & Olino 2008), 28 percent in a sample of over 600 high-school students (Lloyd-

Richardson 2007), and approximately 40 percent in sample of 5700 ninth-grade German students (Brunner et al. 2007). In each of the unreferral samples, the rate of suicide attempt increased as frequency of NSSI increased. Further, these rates are higher than in the general population and similar to and higher than suicide-attempt rates reported in unreferral, young populations with MDD (Andrews & Lewinsohn 1992; Gould, King, et al. 1998; Kessler & Walters 1998; Roberts, Lewinsohn, et al. 1995; Wichstrom 2000).

Female predominance is a characteristic of mood disorders, but, in the reported surveys, male:female ratios range from 1:1 to 1:3, varying slightly with age (see Table 1). Among the three studies conducted among clinical samples of adolescents (Jacobson et al. 2008; Kumar et al. 2004; Nock et al. 2006), NSSI was associated with elevated rates of major depressive disorder (41.6 percent to 58 percent), but also with anxiety disorders (up to 38 percent), PTSD (14 percent to 24 percent), and, most strikingly, externalizing disorders (around 60 percent), with similar rates of substance-use disorders. It is possible that NSSI is a simple epiphenomenon of a mood disorder, but we have found no longitudinal studies that have examined the temporal sequencing of mood disorder and NSSI, i.e., whether the onset of the mood disorder precedes the onset of NSSI.

The alternative is to group NSSI among behavior disorders (i.e., 312.00, "impulse-control disorder not elsewhere classified"). As with other disorders in that group, the diagnosis of NSSI involves repeated and deliberate engagement in a problematic behavior that is often preceded by strong impulses/urges and negative affect and followed by a sense of relief. It shows clear similarities to trichotillomania in that section, and the very high rate of comorbid antisocial behavior is also found in several of the other disorders in that section.

IV. DOES THE ENTITY MERIT THE STATUS OF A DISORDER?

A new disorder in DSM is required to be common, impairing, and distinctive, both with respect to clinical presentation and antecedent and future characteristics.

A. *Prevalence:* Clinical studies might reveal the characteristics of individuals who seek psychiatric care, but they are subject to assignment bias and cannot provide the true prevalence of the disorder. The prevalence of NSSI has been reported on in eleven community-based studies of adolescents and five of adults (see Table 1) that have used a definition of self-injury that approximates the one we propose. The largest community-based study is the German Heidelberg Schools Study (Brunner et al. 2007) that drew on items from the Youth Self-Report and the K-SADS to define “self mutilation” and reported a prevalence of repeated incidents (four or more per annum) of 4 percent. Twelve-month prevalence rates of NSSI, regardless of frequency, among adolescents range from 2.5 percent (Garrison et al. 1993) to 28 percent (Lloyd-Richardson 2007). Lifetime prevalence rates among adults range from 4 percent (Klonsky et al. 2003) to 38 percent (Gratz 2002). In a large, representative sample of adults, Briere and Gil (1998) reported a six-month prevalence of 4 percent. These rates approximate those of major depression and OCD in adolescents and are far higher than those for such disorders as anorexia nervosa, autism, etc.

B. *Natural History:* *Age of onset:* Retrospective, clinical, and community studies indicate an age of onset ranging from 10 years to 16 years. In a retrospective study of 54 predominantly female psychiatric inpatients, Herpertz (1995) found that most had the onset of their condition in adolescence, with onset after early adulthood being very unusual.

The only published prospective longitudinal study—the McLean Study of Adult Development—followed 299 participants who met criteria for BPD (Zanarini et al. 2005). At baseline, 81 percent of the participants reported engaging in NSSI at some point during the two years before joining the study. This rate had fallen to 26 percent at six-year follow-up and gave support to the widely held view that NSSI peaks in mid-adolescence and then decreases on into adulthood, independent of

other symptoms. Prinstein (personal communication) has tracked the longitudinal course of NSSI in an adolescent sample, but the results of that study have not yet been published.

C. *Impairment:* Clinical reports on NSSI note that negative feelings, such as shame, disappointment, and guilt, secondary to engaging in self-injury are common (Briere & Gil 1998, Klonsky in press); up to 64 percent reported shame or guilt in one study of self-injurers (Nixon et al. 2002), but that survey included ingestion and might have been weighted with mood disorders. Specifically, anecdotal evidence suggests that, although a sense of relief often immediately follows engagement in NSSI, feelings of shame and guilt follow more remotely. Clinical reports suggest that academic difficulties are found in children and college students who engage in NSSI and that individuals with NSSI eventually stop going to school because of embarrassment or harassment. Medical complications occur and can result in infection at the site of injury. DiClemente and colleagues (1991) reported that over one quarter of the sample of adolescents who self-injured shared cutting instruments, thus, putting them at risk for contracting infectious diseases, including HIV.

D. *Distinctiveness:* The set of symptoms and criteria that we have described are similar to suicide attempts in that they involve physical damage to the self and are associated with a variety of diagnoses and negative emotions. However, unlike the majority of suicide attempts (most of which involve an ingestion), the impact of the behavior is immediate and short lasting, and the behavior might be repeated several times until the desired effect is obtained. The behavior is anticipated not as a way of dying or as a mode of “getting away from it all,” but as bringing relief from ill-defined tension and distress that will allow the patient to continue his/her predicted life.

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TABLE 1: PREVALENCE OF NSSI AMONG COMMUNITY SAMPLES

	STUDY INVESTIGATORS	YEAR	DEFINITION OF NSSI	SAMPLE			% FEMALE		AGE: MEAN	AGE: RANGE	# OF EVENTS	AGE OF ONSET
				Total N	% NSSI (All Methods)	% Cutting Only	Total Sample	NSSI	Total Sample	NSSI Group		
1	Hilt, Cha, & Nolen-Hoeksema	2008	Functional Assessment of Self-Mutilation ^a ; SR ^b	94	36.2% 12-month (4/53 reported suicide intent); 22.3% 12-month of more severe methods (cut, burn, insert objects)	NR ^c	100%	100%	12.7 yrs.	NR	Avg. freq = 12.8	10.2 yrs.
2	Hilt, Nock, Lloyd-Richardson, & Prinstein	2008	"Have you harmed or hurt your body on purpose (for example, cutting or burning your skin, hitting yourself, or pulling out your hair)?" SR, F/U questions to assess recency & suicide attempts	508	7.5% 12-month (may include suicide attempts, did not clearly specify absence of suicidal intent)	NR	51%	55%	11–14 yrs.	NR	3.3% of total sample ≥ 1 time per month	NR
3	Garrison et al.	1993	K-SADS self-mutilation item (non-suicidal self-mutilation) in-person interview	3283	2.5% 12-month	NR	56%	NR	11–18 yrs.	NR	NR	NR
4	Brunner et al.	2007	K-SADS self-mutilation item (non-suicidal self-mutilation) adapted for self-report	5759	10.9% occasional (1-3 times); 4% repetitive (> 3 times) 12-month	NR	49.8%	63.4% occasional; 74.1% repetitive	14.9 yrs. (all 9th-grade students)	NR	4% at least 3 times 12-month	NR
5	Ross & Heath	2002	Screening instrument question, "ever hurt self on purpose," followed by clinical interview	440	13.9% lifetime	5.7% lifetime	50%	64%	12–17 yrs.	NR	2.3% > 1 method; 3.4% > 1 time per week	Majority 12–14 yrs.
6a	Yates, Tracy, & Luthar	2008	FASM (excluding "pick at wound"); SR	245	26.1% 12-month	3.1% of females, 5.2% of males cut or carved skin 12-month	53%	NR	11–18 yrs.	NR	15.9% > 1 time; 0.8% total sample cut or carved ≥ 6 times	NR
7	Laye-Gindhu & Schonert-Reichl	2005	"Have you ever done anything on purpose to injure ... (but you weren't trying to kill yourself)?" Plus open-ended F/U questions	424	13.2% lifetime	6.6% lifetime (cutting-type behaviors including scratching & poking)	55.7%	75%	15.3 yrs. (13–18 yrs.)	NR	3.5% total sample ≥ 11 times lifetime; 4% total sample NSSI > 1 yr	NR
8	Lloyd-Richardson, Perrine, Dierker, & Kelley	2007	FASM; SR	633	46.5% 12-month; 27.7% more severe NSSI	12% cut or carved skin 12-month	57%	NR	15.5 yrs.	NR	6% total sample used 6 or more methods; avg freq. = 12.9	NR

9	Zoroglu et al	2003	Deliberate harm to one's body without conscious intent to die- exact question; NR	862	21.4% lifetime	8.4% lifetime	61.1%	61.4%	15.9 yrs. (14–17 yrs.)	NR	NR	NR
6b	Yates, Tracy, & Luthar	2008	FASM (excluding "pick at wound"); SR	1036	37.2% 12-month	20.4% of females, 8% of males cut or carved skin 12-month	51.9%	NR	14–18 yrs.	NR	29.5% > 1 time; 4.1% total sample cut or carved ≥ 6 times	NR
10	Muehlenkamp & Gutierrez	2004	Self-harm behavior questionnaire; yes to ever purposefully harming self & no to ever attempting suicide; SR	390	15.9% NSSI (& no co-morbid suicide attempt) lifetime	7.4% lifetime	45.1%	35.9%	16.3 yrs.	NR	3.0% total sample used 3 or more methods	58% 13–15 yrs. (for NSSI &/or SA)
11	Nixon, Cloutier, & Jansson	2008	"Have you ever harmed yourself in a way that was deliberate, but not intended as a means to take your life?: in-person interview	568	16.9% lifetime (includes ingestion of drug or alcohol to harm self)	13.9% cutting, scratching, or self-hitting lifetime	53.7%	77.1%	14–21 yrs.	NR	6.2% total sample > 3 times lifetime	15.2 yrs.
12	Croyle & Waltz	2007	Self-Harm Information Form: list several types of self-injurious behaviors; cutting not to die specified	280	20% 3-year (more severe forms of NSSI only; includes 6 people who overdosed without intent to die)	NR	55%	38%	20.1 yrs.	NR	NR	5–20 yrs.; 37% 15–16 yrs.
13	Whitlock, Eckenrode, & Silverman	2006	"Have you ever done any of the following with intention of hurting self ... list of 16 behaviors," excluded if endorsed "to practice suicide"; SR	2875	17.1% lifetime; 7.3% 12-month	4.6% lifetime	56.3%	NR	73% 18–24 yrs. (college students)	NR	6.7% total sample ≥ 6 times; 4.2% total sample ≥ 11 times	15–16 yrs.
14	Klonsky, Oltmanns, & Turkheimer	2003	Endorsed hurting themselves physically & not having made a suicide attempt	1986	4% lifetime	NR	38%	NR	20 yrs.	NR	NR	NR
15	Gratz, Conrad, & Roemer	2002	Deliberate, direct destruction of body tissue without conscious suicidal intent (exact question not provided); SR	133	38% lifetime	15% lifetime	67%	64%	22.7 yrs. (18–49 yrs.)	NR	18% ≥ 10 times	NR
16	Briere & Gil	1998	"Intentionally hurt yourself (e.g., scratching, cutting, burning) even though you weren't trying to commit suicide"; SR	927	4% 6-month	NR	50%	57.5%	46 yrs. (18–90 yrs.)	35 yrs	.3% of total sample "often"	NR

Note: Studies listed in ascending order of age of participants. ^a FASM = Functional Assessment of Self-Mutilation (Lloyd et al. 1997)—subjects allowed to check off behaviors they have engaged in to hurt themselves, follow-up question regarding suicidal intent associated with any of the behaviors. ^b SR = self-report. ^c NR = not reported.

TABLE 2: HOSPITALIZATIONS FOR SELF-ADMINISTERED INGESTION AND SELF-CUTTING, U.S.A., 2001–2007

	OVERDOSE			CUTTING		
AGE	ANY CONTACT	HOSPITALIZED		ANY CONTACT	HOSPITALIZED	
		(N)	%		(N)	%
10–29	704,072	300,245	(43)	307,622	52,698	(17)
30–49	700,742	381,079	(54)	162,404	49,626	(31)
50–69	174,059	105,297	(60)	29,162	11,412	(39)
70+	18,282	14,217	(78)	5,809	3,222	(55)
Total	1,597,155	800,838	(50)	504,997	116,959	(23)

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TABLE 3: NSSI AND OTHER DIAGNOSES

CITATION	SAMPLE	AGE RANGE	(N)	ASSESSMENT	Co-Occurring Diagnoses							
					No Axis-I Disorder	Mood	Anxiety	Substance/ Alcohol Abuse	Eating Disorder	BPD	Disruptive Behaviors	Other
Herpertz (1995)	Inpatient	16–57 years	54	Standardized (ICD-10)	Approx 17%	24%	9%	33%	54%	52%	ASPD 15%	Schizo 19%
Nock et al. (2006)	Inpatient	12–17 years	89	Standardized (DISC)	12.4%	MDD 42%	16%	60%		52%	62.9%	Any PD 67%
Zlotnick et al. (1999)	Outpatient	Adult	85	Standardized (SCID)	NR	NR	21%	40%	9%	22%	12%	
Hintikka et al. (2009)	Unreferred	13–18 years	80	Standardized (SCID)	21%	63%	37%	5%	15%		10%	Psychotic NOS 2%
Whitlock et al. (2006)	Unreferred	College	490	Standardized	NR	NR	NR	NR	19% ≥ 1 characteristic of ED			