A Literature Review of Deliberate Self-Harm

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PURPOSE. *Despite agreement across disciplines regarding the significance of deliberate self-harm (DSH), there continues to be a lack of consensus regarding what DSH is and is not. The purpose of this literature review was to determine the current state of understanding of this complex phenomenon.*

CONCLUSIONS. *There remains a problem of definitional ambiguity regarding DSH, and a definition derived from the literature is offered. Using Rodger's framework for the evolutionary approach to concept analysis, the attributes, antecedents, and consequences of DSH are developed.*

PRACTICE IMPLICATIONS. *Therapeutic approaches that are based on open-minded, non-judgmental listening and on harm minimization rather than abstinence may be more effective than current treatment approaches that forbid any form of DSH.*

Search terms: *Deliberate self-harm, para suicide, self-injurious behavior, self-mutilation, self-wounding*

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The phenomenon of deliberate self-harm (DSH) is a perplexing behavior that has been explored in the scientific community for many years without definitive results. DSH has also gained attention in contemporary culture. Currently, the United States has seen an upsurge of culturally sanctioned self-harm behaviors in the form of tattooing, body piercing, and branding. Likewise, research evidence indicates the frequency of more serious forms of DSH may have increased in recent years (Cleaver, 2007; Gratz, 2001; Klonsky, Oltmanns, & Turkheimer, 2003; Ross & Heath, 2002). A survey of 8,300 college students revealed that 17% engaged in DSH (Whitlock, Eckenrode, & Silverman, 2007). Despite agreement across disciplines regarding the significance of the phenomenon there continues to be definitional ambiguity and lack of consensus regarding what DSH is and is not. This article presents a review of literature that outlines the current state of understanding regarding this complex phenomenon.

By means of Health Source, Psychology ProQuest, and Academic Search Premier database searches, the authors present a review of literature from 2000 to 2007 that addresses DSH. Several articles prior to 2000 are also included in this review as they are considered seminal works. Using the evolutionary approach of concept analysis as outlined by Rodgers (2000), this article identifies surrogate terms and definitions applied to DSH and presents an operational definition derived from readings. The authors also outline the contextual basis of the concept of DSH, including its attributes, its antecedents, and its consequences. For the sake of clarity, the term *self-harm* or *DSH* is used throughout the article, except when explaining terms used by other authors.

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DSH Defined

Wilson (1963), in his seminal book, *Thinking With Concepts*, stated that analysis of concepts "gives framework and purposiveness to thinking that might otherwise meander indefinitely and purposelessly among the vast marshes of intellect and culture," (p. ix). This statement appears to have particular relevance in considering the myriad names that have been attributed to the concept of DSH. Some examples are self-harm (Beasely, 2000), self-injurious behavior (Alper & Peterson, 2001; Bockian, 2002), repeated self-injury (Crowe & Bunclarck, 2000), self-wounding (Huband & Tantam, 2000), para suicide (Conaghan & Davidson, 2002), self-mutilation (Ross & Heath, 2002), episodic and repetitive self-injury (Favazza, 1998), and autodestructive behavior (Kocalevent et al., 2005).

Furthermore, a review of recent literature defines this phenomenon in divergent ways as well. While some describe DSH as existing only when there is clear intent NOT to kill oneself (Conaghan & Davidson, 2002), others define it in just the opposite way, saying it exists only when there is clearly intent to kill oneself (Klonsky et al., 2003; Ross & Heath, 2002). Still others define DSH as self-harm regardless of intent (Saxe, Chawla, & van der Kolk, 2002). Clearly, a need for a standard, universal definition is necessary in order for the scientific community to wade out of the "intellectual marsh" and advance its inquiry into this complex phenomenon.

It is the authors' belief that those who self-harm with the intent to kill themselves do so from far different antecedent causes and with far different outcome expectations than those who self-harm without the intent to kill themselves. Favazza (1998) agrees and describes self-harm behavior as a morbid form of self-help that is antithetical to suicide. In fact, one model of self-harm (Suyemoto, 1998) is named the "anti-suicide" model and focuses on DSH as an active coping mechanism used to avoid suicide. Despite this, the association between failed suicide and DSH lingers and represents a persistent failure to make a distinction between two very different acts. Thus, it may be that the reason that a true understanding of DSH remains elusive is because researchers have been attempting to study DSH as if it were one phenomenon that included any attempt at self-harm, when in reality suicide and DSH are two completely different phenomena.

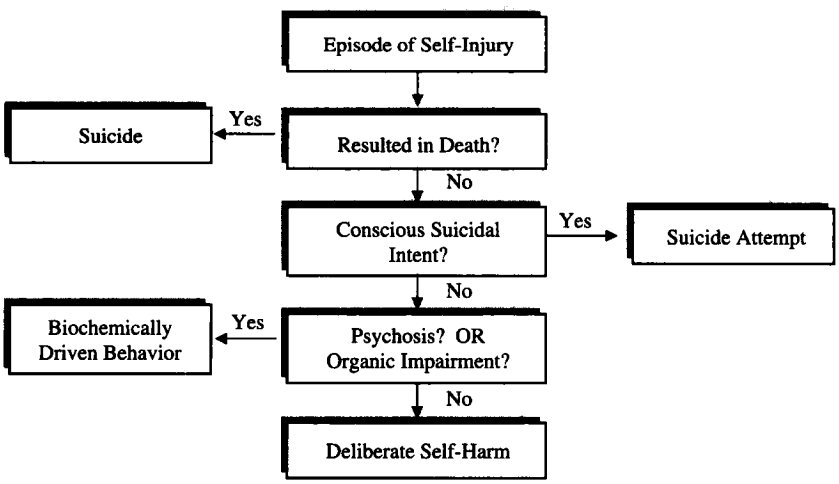
For the remainder of this article the term *DSH* will be used for those whose intent is *not to kill themselves*. The assessment of "intent" is subjective and its determination may be difficult, but exploring DSH intent is essential to gaining an understanding of the nature of this disturbing phenomenon.

A definition of this concept (schematically depicted in Figure 1) is derived from the literature, and for the purposes of this article is: a direct behavior that causes minor to moderate physical injury, that is undertaken without conscious suicidal intent, and that occurs in the absence of psychoses and/or organic intellectual impairment. (These disqualifiers are explained later in this literature review). This definition approximates the one derived by Suyemoto (1998) in her literature review, although Suyemoto named this concept "self-mutilation" as does Favazza (1998). The term *mutilation*, however, implies a degree of self-destruction more severe than most DSH.

Gratz (2001) echoed this concern and preferred the use of the term *DSH*, stating that it has less of a negative connotation. This may be an important consideration given the idea of permanence that the word *mutilation* evokes, the stigma attached to these behaviors, and the tendency of this phenomenon to arouse strong emotions.

Those who self-harm and have serious psychopathology or organic mental impairment are left out of this definition because, in these cases, the behavior is not motivated by the same dynamics as those who self-harm in the absence of psychoses or organic impairment (Favazza, 1996). Limiting the definition serves the purpose of narrowing the literature discussion to those studies and scholarly works that

Figure 1. Differential Algorithm of Deliberate Self-harm



address DSH without suicidal intent, psychopathological motivation, or cultural sanction. Using this definitional understanding, the following sections develop the concept of DSH by delineating attributes, antecedents, and consequences of DSH. These are schematically depicted in Figure 2.

Attributes of DSH

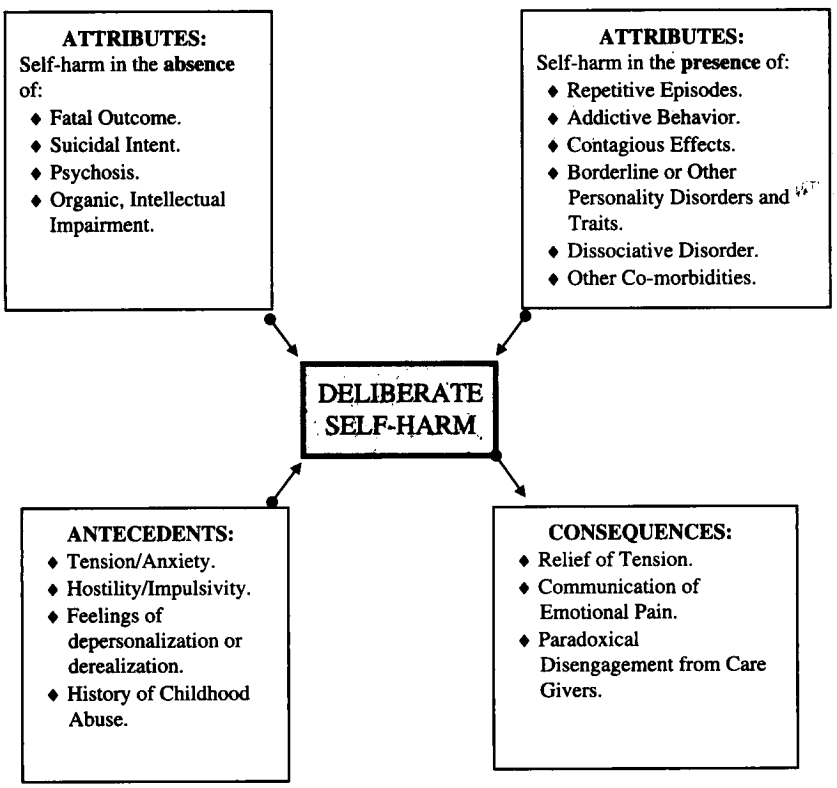
Absence of a Fatal Outcome and Suicidal Intent

Obviously, the first attribute of DSH is self-harm with a non-fatal outcome. If it were fatal, it would, by definition, be suicide. DSH behaviors differ from suicide attempts in that the intent is not death but rather improvement of a psychological state (Roth & Presse, 2003). Hjelmeland et al. (2002) argued that the understanding of intentions is essential to differentiating suicidal acts from DSH acts. They conceded, however, that individuals often may not have full insight into the nature of their intentions regarding their self-harm behaviors.

In his 1996 edition of *Bodies Under Siege*, Favazza solidified the understanding that self-harm and suicide are two distinctly different phenomena. Suyemoto (1998) agreed and described DSH not as suicide attempts but rather as "anti-suicide" and developed a model of DSH that focuses on DSH as a coping mechanism to avoid suicide by channeling destructive impulses into self-harm rather than self-destruction. Other experts in this field have upheld this idea (Klonsky et al., 2003; Ross & Heath, 2002), although many health-care professionals are not aware of this distinction.

DSH, as defined in this analysis, is not inherently suicidal in nature. However, studies have demonstrated that patients who frequently self-mutilate are more likely to attempt suicide (Alper & Peterson, 2001; Cuellar & Curry, 2007). In fact, Cooper et al. (2005) found a 30-fold increase in risk of suicide for those who self-harm as compared to non-self-harmers, and Sakinofsky (2005) found a 15-fold increase. In addition, suicide may be an unintended consequence of self-harm and, therefore, DSH behaviors are an ominous sign of the potential to complete suicide.

Figure 2. Best-fit Attributes, Antecedents, and Consequences of Deliberate Self-harm



Absence of Psychoses or Organic Mental Impairment

Self-harm behaviors are not considered DSH if the act is in response to a delusion, hallucination, or serious mental retardation (Favazza, 1998). Repetitive self-harm in the presence of certain types of known psychopathology has generally been conceptualized as biologically driven behavior and is considered to occur outside of the realm of DSH. For example, head banging and self-biting are relatively common among severely mentally retarded individuals (Crowe & Bunclarck, 2000). Complex interactions between biological, psychological, and environmental factors appear to lead to self-injury in these circumstances. Favazza (1998) classified these behaviors as stereotypic self-mutilation, which is characterized by repetitive acts that have a fixed pattern of expression, are rhythmic, and are seemingly devoid of symbolism. This makes these behaviors substantially different from DSH, a set of behaviors that appears to be rife with symbolism.

Evidence of Repetitive, Addictive, and/or Contagious Behavior

DSH is viewed by many to have an addictive quality. Crowe and Bunclarck (2000) address this attribute as one of the most striking aspects of repeated DSH and

suggest it goes together with the frequent coexistence of other addictions seen in these individuals, such as alcohol and drugs. Matsumoto et al. (2005) found that in a population of male juvenile inmates, self-cutters more frequently used psychoactive drugs than did the non-cutters ($p < 0.001$). These findings were confirmed by Cuellar and Curry (2007) who found co-morbidity to be extensive between marijuana abuse and DSH. In Beasely's (2000) study of psychiatric inpatients who self-harmed, alcohol misuse was recorded in the clinical history of 71% of the subjects studied and illicit substance misuse was recorded in 54%. Beasely (2000) also reported that DSH behaviors were most prevalent in the evening hours and were found to be highly contagious among those on the inpatient unit. Clusters of incidents over a 5-day period were found to involve as many as 11 patients at a time.

Presence of Co-morbidities

A defining criterion for borderline personality disorder in the *Diagnostic and Statistical Manual of Mental Disorders IV* (4th edition, text revision) (*DSM-IV-TR*) is DSH, termed "repeated self-harm" (American Psychiatric Association, 2000). Many studies support the classification of DSH as a symptom of borderline personality disorder (Alper & Peterson, 2001; Beasely, 2000; Favazza, 1996). Klonsky et al. (2003) studied DSH in a group of military recruits, and their results supported the *DSM-IV-TR* classification of DSH as a symptom of borderline personality disorder. In addition, they found other personality disorders and traits in this non-clinical population. A "self-harm" personality profile emerged. Peers of these recruits reported that those with DSH behaviors tended to have strange and intense emotions and a heightened sensitivity to rejection.

Recent literature reveals that DSH behaviors are found in tandem with other *DSM-IV-TR* diagnoses as well. Saxe et al. (2002) found that 86% of their sample of patients with dissociative disorders engaged in self-harm behaviors. Matsumoto et al. (2005) revealed a robust relationship between DSH and dissociation in their research sample. This appears logical since dissociative disorders are strongly linked to childhood abuse and the same appears to be true of DSH (American Psychiatric Association, 2000). Castille et al. (2007) found the diagnostic composition of 105 self-harmers in their study to include such diagnoses as mood disorders (56.4%), anxiety disorders (30.4%), posttraumatic stress disorder (4.3%), and eating disorders (4.3%).

To summarize, current literature seems to be moving away from looking at DSH as exclusively a component of borderline personality disorder. Research, with the use of cleaner definitions and diverse populations, needs to be supported so a clearer diagnostic understanding can emerge.

Antecedents of DSH

Buildup of Tension and Anxiety

Although the reasons precipitating DSH are complex, all of the literature examined revealed that the primary antecedent or situation preceding an instance of DSH was some form of tension buildup. Both depression and anxiety are commonly seen in people who engage in DSH, but anxiety/tension has been found to maintain a substantial unique relationship to DSH over and above depression (Klonsky et al., 2003).

This antecedent is dramatically substantiated in statements made by those who self-harm. One female, age 38 stated: "I feel like a pressure cooker that's going to explode. Cutting and bleeding sufficiently is like letting out the steam. If I do this to my satisfaction, I feel immediate relief, as if injected with Valium or something. It helps stop the inner turmoil for a while" (Bockian, 2002, p. 19).

Andover, Pepper, Ryabchenko, Orrico, and Gibb (2005) were the first to investigate differences in anxiety and depression among self-harmers who cut themselves and those who self-harm in other ways. They confirmed that those who self-harm generally

had significantly more depression and anxiety symptoms than the control group. When they differentiated self-cutters from those who engage in other forms of DSH, they found that self-cutters reported significantly more anxiety than the other self-harmers but have similar levels of depression.

Hostility and Impulsivity

Ross and Heath (2003) studied a group of 122 adolescents in two high schools who self-harmed. The results showed that while a small group of adolescents reported only feelings of anxiety, more than two thirds of those who self-harmed indicated feeling both hostility and anxiety prior to acts of DSH. The results of this study lend support for the hostility model of DSH as outlined by Herpertz, Sass, and Favazza (1997). This model postulates that an individual turns to self-harm because of an inability to overtly express anger, which, in turn, leads to rising tension. One further finding of Ross and Heath (2003) was that self-harmers had greater levels of both extrapunitive hostility (e.g., cynical, resentful, easily angered) and intropunitive hostility (e.g., self-doubt, guilt, self-criticism). This tendency to become more easily angered while, at the same time, experiencing self-dislike and guilt may result in directing these hostile feelings against the self.

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Castille et al. (2007), at Widmer University, studied maladaptive schemas for those who self-harm and found that one of the four schemas that distinguished self-harmers from non-self-harmers was an underlying belief that he or she lacks self-control and is impulsive ($p = 0.008$). The researchers concluded that this inherent impulsivity might render the self-harmer unable to cope with unbearable affect and cognitions in more adaptive ways.

Feelings of Depersonalization and De-realization

Gratz, Conrad, and Roemer (2002) examined risk factors for DSH in a population of college students and found the most significant predictor was dissociative episodes. The idea of feelings of unreality, or lack of a feeling state, as triggers to DSH has also been documented in qualitative studies (Machoian, 1998; Mangnall, 2006). Harmony, one of the participants in Machoian's (1998, p. 189) study, described this state as being in the Twilight Zone and stated, "Oh God, like, you're in a fog. It's like you're, it's like I'm looking at the world, but I don't feel like I'm here. It's like this big cloud in front of me. Do you know what I mean?" Cutting seems to end the dissociative episode and bring the self-harmer back to a sense of realness.

History of Childhood Trauma

Childhood trauma is predominantly featured in the discussion of predisposing factors for DSH, and the association has a long history with ample evidence (Gratz, 2006; Klonsky et al., 2003; Turell & Armsworth, 2003). The presence of childhood trauma has been shown to precipitate DSH in childhood and in later life. Of the self-harming patients that Zanari et al. (2006) studied, 32.8% first harmed themselves as children (12 years of age or younger), 30.2% as adolescents, and 37% as adults. The results of their study suggested that when self-harm begins in childhood, the course of DSH may be particularly malignant.

Consequences of DSH

As with the antecedents of DSH, there are also many consequences listed in the literature (see Figure 2). While the acts may seem irrational, those who engage in self-harm often explain their behavior in ways that possess a situated internal logic (Harris, 2000). For example, a female, age 23, refers to this antecedent in her statement: "I injure myself to try to calm down, to try and escape the painful memories of my abuse, to try and take control of my emotions, to try to feel safe, to stop the nightmare and day mares to try and feel" (Bockian, 2002, p. 20).

Relief From Tension

The rapid and dramatic reduction of tension following an act of DSH has been well documented (Bockian, 2002; Gratz, 2003; Klonsky et al., 2003; Mangnall, 2006). Although it seems counterintuitive, the self-harm action itself seems to result in immediate release and relief, and there is biological evidence that self-harmers experience a physiological stress reduction after an episode that may last as long as 24 hr (Crowe & Bunclarck, 2000).

Sachsse, von der Heyde, and Huether (2002) were able to demonstrate the physiological stress reduction that follows an act of DSH. They assessed the urine cortisol level of one self-harming woman for 86 consecutive nights. She generally showed low cortisol excretion; however, whenever her cortisol level rose above 20 μg, she performed one of several acts of DSH. Subsequently, an instantaneous return to her baseline low cortisol levels was observed. These authors conclude that the results provide some initial evidence that episodes of DSH may occur as a response to hyperactivity of the central stress-sensitive neuroendocrine systems. Thus, they lend some neurobiological weight to the assumption that DSH may be regarded as an unusual but physiologically effective coping strategy for regaining control over an otherwise uncontrollable stress response. Further studies are needed to confirm this finding, but it does provide preliminary evidence that DSH may have some psychobiological antecedents.

Communication of the Degree of Pain

Another prominent theme related to consequences of DSH is reported by Machoian (2001), who described cutting as a means of gaining a response when speaking voices fail. One of the girls interviewed in her qualitative study stated: "It's, it's an actualization of pain, you know . . . The most basic is that even if you tell people that something is wrong, a lot of times, they won't, they won't know how wrong. But all they'll do is see a cut along a vein, and they get the message right away" (p. 25).

These qualitative findings were indirectly supported by Castille et al. (2007), who found a strong correlation between self-harm and a broad pervasive schema of social isolation and alienation ($p = 0.008$). It seems that those who self-harm feel that no one is able to be emotionally supportive and provide them with understanding and affection. In the absence of caring listeners, it may be that self-harmers feel the need to turn to a more dramatic communication method. Potter (2003) suggested that the body is being used as text and serves to communicate something that is difficult to articulate in conventional modes.

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Paradoxical Disengagement From Caregivers

Patients who present for treatment of DSH are often critical of their treatment and describe negative attitudes of their caregivers (Shaw, 2002; Warm, Murray, & Fox, 2002). Negative reactions of the health professionals to women who self-harm are a paradoxical and unintended consequence. Machoian's (1998) qualitative inquiry of adolescent girls revealed that as soon as girls who self-harm discover the efficacy of this language they are denigrated for knowing it. Many therapists and nurses find that they need to manage their own reactions even as they attempt to manage the self-harm behaviors of their patients (Klonsky et al., 2003). Shaw (2002) explained that clinicians seem to lose sight of the conceptualization of DSH as an attempt to control psychological distress and, instead, view the behavior as psychological blackmail.

Hopkins (2002) interviewed nurse key informants in her ethnographic study and found that these nurses perceived self-harmers as impeding the functioning of the busy medical admissions unit because of their complex and time-consuming needs. She concluded that people who self-harm are seen as having reduced entitlement to care.

Implications for Nursing Practice

Although we have not sought to highlight implications for nursing practice, three brief treatment considerations that bear noting are briefly addressed here. First, nurses should avoid a punitive mindset and the assumption that these behaviors are manipulative or suicidal. Second, DSH seems to serve a purpose as a coping mechanism, albeit a maladaptive one. Crowe and Bunckarck (2000) recognized the self-preservation function that DSH may have and advocate a treatment approach that is based on harm minimization rather than abstinence. A lengthy discussion of this treatment approach is beyond the scope of this literature review, but briefly, their approach tolerates DSH within limits while also seeking to offer education and alternatives. This is in contrast to the common treatment approach, which focuses primarily on preventing DSH. Third, DSH serves as a way to communicate extreme discomfort when speaking voices fail; thus it becomes imperative that nurses listen to what McLane (1996) calls "the voice on the skin." Mangnall (2006) reported that the best thing that nurses could do was "just listen." Implied in this is the understanding that those who self-harm should be allowed to "just talk" without the fear of reprisal. The value of developing a therapeutic relationship in which those who self-harm are not pejoratively labeled as manipulative has been shown to ameliorate self-harm behavior (Crowe & Bunclarck, 2000; Machoian, 2001; Warm, Murray, & Fox, 2002).

In the vast universe of human suffering, few activities rank as puzzling and disconcerting as DSH. Little is known about the causes and treatment of DSH, while even less is understood of this disturbing behavior from the standpoint of those who engage in it. Research questions for persons with DSH that are in need of further investigation include: (a) How do people who engage in DSH describe/define their behavior or label their actions? (b) What do persons who engage in this behavior experience from their actions or hope to gain from it (i.e., motivating factors)? (c) What becomes of people who self-harm in the long term? (d) What circumstances differentiate those who stop self-harming from those who continue?

Meaningful and effective treatment strategies must be grounded in understanding the clients' perceptions and answers to these questions. Further exploration of these disturbing behaviors needs to be accorded legitimate attention in contemporary scientific literature.

Conclusion

In this article the authors presented literature documenting the definitional ambiguity of DSH that complicates research, theory development, and practice. A definition is offered that was derived from research presented in current literature. The concept of

DSH was explicated and organized around the evolutionary view of concept development (Rodgers, 2000), which provided the organizational framework for the authors' summarization of the attributes, antecedent conditions, and consequences of DSH.

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References

Alper, C., & Peterson, S. (2001). Dialectic behavior therapy for patients with borderline personality disorder. *Journal of Psychosocial Nursing, 39*(10), 38–45.

American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.

Andover, M., Pepper, C., Ryabchenko, K., Orrico, E., & Gibb, B. (2005). Self-mutilation and symptoms of depression, anxiety, and borderline personality disorder [Electronic version]. *Suicide and Life-Threatening Behavior, 35*(5), 581–592.

Beasely, S. (2000). Deliberate self-harm in medium security. *Nursing Management, 6*(8), 29–33.

Bockian, N. (2002). *New hope for people with borderline personality disorder.* Roseville, CA: Prima Publishing.

Castille, K., Prout, M., Marczyk, G., Shmidheiser, M., Yoder, S., & Howlett, B. (2007). The early maladaptive schemas of self-mutilators: Implications for therapy. *Journal of Cognitive Psychotherapy, 21*(1), 58–71.

Cleaver, K. (2007). Adolescent nursing. Characteristics and trends of self-harming behavior in young people. *British Journal of Nursing, 16*(3), 148–152.

Conaghan, S., & Davidson, K. (2002). Hopelessness and the anticipation of positive and negative future experiences in older para suicidal adults. [Electronic version]. *British Journal of Clinical Psychology, 41*(3), 233–243.

Cooper, J., Kapur, N., Webb, R., Lawlor, M., Guthrie, E., Machway-Jones, K., et al. (2005). Suicide after deliberate self-harm: A 4-year cohort study. *American Journal of Psychiatry, 162*(2), 297–303.

Crowe, M., & Bunclarck, J. (2000). Repeated self-injury and its management. *International Review of Psychiatry, 12*(1), 48–53.

Cuellar, J., & Curry, T. (2007). The prevalence and comorbidity between delinquency, drug abuse, suicide attempts, physical and sexual abuse, and self-mutilation among delinquent Hispanic females. *Hispanic Journal of Behavioral Sciences, 29*(1), 68–78.

Favazza, A. (1996). *Bodies under siege: Self-mutilation and body modification in culture and psychiatry* (2nd ed.). Baltimore, MD: Johns Hopkins University Press.

Favazza, A. (1998). The coming of age of self-mutilation. *Journal of Nervous and Mental Disease, 185*(5), 259–268.

Gratz, K. (2001). Measurement of deliberate self-harm: Preliminary data on the deliberate self-harm inventory. *Journal of Psychopathology and Behavioral Assessment, 23*, 243–263.

Gratz, K. (2003). Risk Factors for and functions of deliberate self-harm: An empirical and conceptual review. *Clinical Psychology: Science and Practice, 10*(2), 192–205.

Gratz, K. (2006). Risk factors for deliberate self-harm among female college students: Role and interaction of childhood maltreatment, emotional inexpressivity, and affect intensity/reactivity. *American Journal of Orthopsychiatry, 76*(2), 238–250.

Gratz, K., Conrad, S., & Roemer, L. (2002). Risk factors for deliberate self-harm among college students [Electronic version]. *American Journal of Orthopsychiatry, 72*(1), 128–140.

Harris, J. (2000). Self-harm: Cutting the bad out of me. *Qualitative Health Research, 10*(2), 164–173.

Herpertz, S., Sass, H., & Favazza, A. (1997). Impulsivity in self-mutilative behavior: Psychometric and biological findings. *Journal of Psychiatric Research, 31*, 451–464.

Hjelmeland, H., Hawton, K., Nordvik, H., Bille-Brahe, U., DeLeo, D., Fekete, S., et al. (2002). Why people engage in para suicide: A cross-cultural study of intentions [Electronic version]. *Suicide and Life-Threatening Behavior, 32*(4), 380–394.

Hopkins, C. (2002). "But what about the really ill, poorly people?" (An ethnographic study into what it means to nurses on medical admissions units to have people who have harmed themselves as their patients [Electronic version]. *Journal of Psychiatric and Mental Health Nursing, 9*(2), 147.

Huband, N., & Tantam, D. (2000). Attitudes of self-injury with a group of mental health staff [Electronic version]. *British Journal of Medical Psychology, 73*(4), 495–505.

Klonsky, E. D., Oltmanns, T., & Turkheimer, E. (2003). Deliberate self-harm in a nonclinical population: Prevalence and psychological correlates. *American Journal of Psychiatry, 160*(8), 1501–1509.

Kocalevent, R., Fliege, H., Rose, M., Walter, M., Danzer, G., & Klapp, B. (2005). Auto destructive syndromes. *Psychotherapy and Psychosomatics, 74*, 202–211.

Machoian, L. (1998). The possibility of love: A psychological study of adolescent girls' suicidal acts and self-mutilation. *ProQuest Digital Dissertations*, (UMI No. AAT 9830063).

Machoian, L. (2001). Cutting voices: Self-injury in three adolescent girls. *Journal of Psychosocial Nursing, 39*(11), 22–29.

Mangnall, J. (2006). *Needing to act: Exploring deliberate self-harm in incarcerated women.* Unpublished dissertation, Grand Forks: University of North Dakota.

Matsumoto, T., Yamaguchi, A., Takeshi, A., Okada, T., Yoshikawa, K., & Hirayasu, Y. (2005). Characteristics of self-cutters among male inmates: Association with bulimia and dissociation. *Psychiatry and Clinical Neurosciences, 59*, 319–326.

McLane, J. (1996). The voice on the skin: Self-mutilation and Merleau-Pontys theory of language. *Aypatia, 11*(4), 107–118.

Potter, N. (2003). Commodity/body/sign: Borderline personality disorder and the signification of self-injurious behavior [Electronic version]. *Philosophy, Psychiatry and Psychology, 10*(1), 1.

Rodgers, B. (2000). Concept analysis: An evolutionary view. In B. Rodgers & K. Knafl (Eds.), *Concept development in nursing* (pp. 77–102). Philadelphia: W.B. Saunders.

Ross, S., & Heath, N. (2002). A study of the frequency of self-mutilation in a community sample of adolescents [Electronic version]. *Journal of Youth and Adolescence, 31*(1), 67–78.

Ross, S., & Heath, N. (2003). Two models of adolescent self-mutilation [Electronic version]. *Suicide and Life-Threatening Behavior, 33*(3), 277–287.

Roth, D., & Presse, L. (2003). Nursing interventions for para suicidal behaviors in female offenders. *Journal of Psychosocial Nursing, 41*(9), 20–29.

Sachsse, U., von der Heyde, S., & Huether, G. (2002). Stress regulation and self-mutilation [Electronic version]. *American Journal of Psychiatry, 159*(4), 672.

Sakinofsky, I. (2005). Attendance at accident and emergency for deliberate self-harm predicts increased risk of suicide, especially in women. *Evidence-Based Mental Health, 8*(4), 97.

Saxe, G., Chawla, N., & van der Kolk, B. (2002). Self-destructive behavior in patients with dissociative disorders [Electronic version]. *Suicide and Life-Threatening Behavior,* 32(3), 313–321.

Shaw, S. (2002). Shifting conversations on girls' and women's self-injury: An analysis of the clinical literature in historical context [Electronic version]. *Feminism and Psychology, 12*(2), 191–219.

Suyemoto, K. (1998). The functions of self-mutilation [Electronic version]. *Clinical Psychology Review, 18*(5), 531–554.

Turell, S., & Armsworth, M. (2003). A log-linear analysis of variables associated with self-mutilation behaviors of women with histories of child sexual abuse. *Violence Against Women, 9*(4), 487–513.

Warm, A., Murray, C., & Fox, J. (2002). Who helps? Supporting people who self-harm. *Journal of Mental Health, 11*(2), 121–130.

Whitlock, J., Eckenrode, J., & Silverman, D. (2007). Lifetime prevalence of self-injurious behavior among U.S. college students is 17%. *Evidence-Based Mental Health, 10*(1), 30.

Wilson, J. (1963). *Thinking with concepts.* Cambridge, U.K.: Cambridge University Press.

Zanari, M., Frankenburg, F., Ridolfi, M., Jager-Hyman, Hennen, J., & Gunderson, J., et al. (2006). Reported childhood onset of self-mutilation among borderline patients. *Journal of Personality Disorders, 20*(1), 9–16.