



M I N D

Self-Cutters May Be Seeking Pain Relief

People who intentionally hurt themselves are often seeking relief from pain

By Hal Arkowitz, Scott O. Lilienfeld on November 1, 2013



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“You don't feel like you're hurting yourself when you're cutting. You feel like this is the only way to take care of yourself,” a young woman we will call Alice told journalist Marilee Strong for her 1998 book, *A Bright Red Scream: Self-Mutilation and the Language of Pain*. As with many adolescents and young adults, Alice habitually harmed herself by cutting her arms and wrists.

Such behavior has long puzzled laypeople and scientists alike. Many have assumed that it is the same as a suicide attempt or a ploy to manipulate others. In reality, a person who deliberately engages in self-harm may be at risk of suicide, but the act is, by definition, not an attempt to mortally wound. In addition, there are numerous reasons for the behavior, attention seeking being only one of the more rare ones. Indeed, as Alice's comment suggests, people drawn to these behaviors often report that their actions bring positive psychological effects. Recent work suggests that self-injury might in some cases provide a form of pain relief, an insight that might lead to new treatments for the condition.

Deliberate Destruction

In a 2009 book psychologist Matthew K. Nock of Harvard University defined nonsuicidal self-injury as “the direct and deliberate destruction of one's own body tissue in the absence of suicidal intent.” By far the most common method of self-harm is cutting and scratching the skin. Other means of hurting oneself include head banging, hitting, burning, and picking at wounds, thereby interfering with their

healing. In rare cases, people go to grotesque extremes, such as self-castration or plucking out their eyes.

Self-harming is neither uncommon nor new. During the late 19th century European women were known to puncture themselves with needles. More recently, the list of public figures who have self-injured includes Princess Diana, actors Johnny Depp and Angelina Jolie, singers Amy Winehouse, Courtney Love and Marilyn Manson, and an early pioneer in sex research, Alfred Kinsey.

In 2011 psychologist E. David Klonsky of the University of British Columbia surveyed by telephone 439 randomly selected adults between the ages of 19 and 92 about whether they currently or had ever engaged in self-injury and, if so, when such behavior occurred and the types of injury inflicted. His data revealed that a staggering 6 percent of his sample displayed some kind of self-injurious behavior during their lifetime. Klonsky found that self-injury usually begins between the ages of 13 and 15 and is most frequent among adolescents. Only 35 percent of the subjects started hurting themselves at or after age 18. Half of those who harmed their own body used more than one method to do so. Results of studies on gender differences are mixed, but most find the habit to be more common among women.

Worse than the wounds themselves—although these sometimes require medical treatment—is the heightened risk of attempted and actual suicide among chronic self-injurers. Numerous researchers have found a strong association between self-harm and suicidal behaviors, such as thoughts of, plans for and attempts at suicide, as well as completed suicide. In a 2002 review article psychiatrist David Owens of the University of Leeds in England reported that more than 5 percent of patients hospitalized for self-harm died by suicide within nine years of their discharge.

Self-injury was once thought to be limited to borderline personality disorder, a serious illness marked by instability in mood, identity, impulse control and relationships. We now know that people who physically abuse themselves very likely are afflicted with any of various mental illnesses. These ailments include major depression, bipolar disorder, anxiety disorders, eating disorders, schizophrenia and some personality disorders, including the borderline type [see [“Diagnosis of Borderline Personality](#)

Disorder Is Often Flawed,” by Scott O. Lilienfeld and Hal Arkowitz; *Scientific American Mind*, January/February 2012].

To highlight its pathological significance, nonsuicidal self-injury was for the first time categorized as a distinct condition in the 2013 edition of the American Psychiatric Association's diagnostic manual, *DSM-5*. Rather than being an official diagnosis, however, the problem appears in a section of the publication entitled “Conditions for Further Study,” which lists behaviors or issues that merit further research. The new entry emphasizes that self-injury is not associated with one particular mental illness and may constitute a stand-alone problem. For example, some people might be diagnosed with major depressive disorder and nonsuicidal self-injury to distinguish that person from someone who is depressed but does not harm himself or herself.

Coping and Changing

Despite numerous attempts to determine why people deliberately hurt themselves, no one is certain of the answer. When asked why they do it, individuals most commonly say their actions help them suppress or release negative emotions, such as anxiety, anger or depression. Psychiatrist Leo Sher, then at Columbia University, and Columbia psychologist Barbara Stanley concluded in 2009 from their review of biological research that self-injury releases opiatelike chemical messengers in the brain known as endorphins. The release leads to a euphoric state that reduces pain and offers reprieve from emotional distress, supporting the reason most self-injurers give for their behavior. This state may also explain why people such as Alice say they feel as if they are being good to themselves. A smaller percentage of afflicted individuals report that the pain helps to snap them out of an emotional numbness, that they want to punish themselves for wrongdoing or that they are using their injuries to get attention from others.

Based on the endorphins hypothesis, some researchers have examined whether naltrexone—a drug used to treat alcohol dependence that blocks the release of these hormones in the brain—might limit this self-destructive behavior by reducing its palliative properties. So far, however, the results of studies of the effectiveness of this and other medications for the condition have been unconvincing.

For now an approach called dialectical-behavior therapy, developed by psychologist Marsha M. Linehan of the University of Washington, offers the best hope for patients. In this therapy—which was initially designed for people with borderline personality disorder, 80 percent of whom self-injure—clients learn how to better tolerate stress and reduce negative feelings, among other coping strategies. The approach combines emotion-regulation techniques used in cognitive-behavior therapy with mindfulness training, which emphasizes acceptance and living in the moment. At least five well-designed studies show that dialectical-behavior therapy reduces rates of self-injury in individuals and lowers the number of suicide attempts and episodes of substance abuse in people with personality disorders.

Although its effectiveness in people with other psychological problems remains unsubstantiated, the treatment is an excellent starting point for the Alices of the world who need less harmful ways to take care of themselves.