

## SELF-MUTILATION ASSOCIATED WITH DISSOCIATIVE DISORDERS

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### ABSTRACT

*The incidence of self-mutilation is high among patients with eating disorders, antisocial personality disorder, and borderline personality disorder. To determine the incidence of self-mutilation among patients with dissociative disorders, the first one hundred consecutive adult dissociative disorder patients who were enrolled in a dissociative disorders clinic were evaluated for self-mutilation. Self-mutilation was a common occurrence among patients with multiple personality disorder (48%), psychogenic amnesia (29%), and dissociative disorder not otherwise specified (23%). Often the patients were amnesic for the self-mutilation. The occurrence of amnesia or persistent denial of self-injury in anyone who engages in self-mutilation makes it imperative that they be screened carefully for evidence of dissociation. Four case histories are described and illustrated with photographs.*

According to Favazza (1987) self-mutilation is a little-understood and puzzling behavior. Favazza defines self-mutilation as the "deliberate destruction or alteration of body tissue without conscious suicidal intent" (Favazza, 1989). Self-mutilation includes the cutting, biting, bruising, abrading, burning, and scratching of the skin, hairpulling, bone breaking, and amputation of various body parts including digits, limbs, eyes, ears, breasts, and genitals.

Although precise figures on incidence of self-mutilation are unavailable, Favazza and Conterio (1988) estimate that a rate of 750 incidents of self-mutilation per 100,000 people in the general population per year is not unreasonable. Several psychiatric diagnostic groups appear to be overrepresented with respect to self-mutilation. Self-mutilation is actually a diagnostic criterion for borderline personality disorder (American Psychiatric Association, 1987), and, although the actual percentage of such patients who mutilate themselves is unknown, Favazza (1987) estimates that at least one of eight borderline patients self-mutilates each year. Self-mutilation is also common among patients with eating disorders. Patients with anorexia nervosa have a 35% rate (Jacobs and Issacs, 1986)

and patients with bulimia have a 25.7% to 40.5% rate (Mitchell, Bontacoff, Hatsukami, Pyle, & Ekert, 1986). Although the precise incidence of self-mutilation among patients with psychoses such as schizophrenia, mania, and major depression with psychosis is unknown, the occurrence of the most severe types of self-mutilation, such as eye enucleation and genital amputation, seem to predominate in these diagnostic categories (Favazza, 1987). In certain penal institutions the rate of self-mutilation is considerable and varies from 6.5% to 86.0% (Favazza, 1987). For example, Virkkunen (1976) reported that 24% of prisoners with antisocial personality disorder engaged in self-mutilation.

A triad of disorders involving self-mutilation which most often presents to dermatologists includes neurotic excoriations, dermatitis artefacta, and trichotillomania (Waisman, 1965; Whitlock, 1976; Krupp, 1977; Rook & Wilkerson, 1979; Donan, Roy, & Wolowitz, 1985; Gupta, Gupta, & Haberman, 1987). Neurotic excoriations are generally small ulcerated-appearing lesions produced by pinching or scratching pruritic areas or benign irregularities on easily accessible areas of the body such as the face, chest, and extremities. The lesions of dermatitis artefacta are found in the same areas but the morphology of the lesions may be bizarre and vary widely based on the great variety of offending agents used to inflict the injury (such as burning with acids, injecting with feces or bacteria, scraping with sandpaper, etc.). Trichotillomania is compulsive hairpulling usually seen in children but also reported in adulthood. Although patients with neurotic excoriations usually will admit the practice readily, some with trichotillomania deny hairpulling and those with dermatitis artefacta almost invariably deny self-injury. Interestingly, all three disorders have been reported to occur predominantly among females (Gupta, et al., 1987).

Psychiatric clinicians are perhaps most familiar with trichotillomania and various forms of self-cutting (Pattison & Kahan, 1983; Favazza, 1987; Feldman, 1988), including enucleation of eyes (Tappan, Bland, & Danyluk, 1979), mutilation of female genitalia (Simpson, 1973), and amputation of various bodily parts such as tongue (Michael & Beck, 1974), ears (Lubin, 1961), testicles (Greilsheimer & Graves, 1979), and breasts (Coons, Ascher-Svanum, & Bellis, 1986). Individuals who engage in such behavior may experience an intrusive impulse to mutilate which finally becomes irresistible. It may be associated with a desire to expel badness, and may be followed by a sense of either relief, anxiety, or guilt.

Although an association between depersonalization and/or dissociation and self-mutilation has been reported previously (V.I.), this association remains largely unappreciated or unrecognized by clinicians and the reasons for the association

remain even more obscure. There are several reports of depersonalization including numbness, out-of-body separateness, and loss of control during wrist cutting of a suicidal nature (Graff & Mallin, 1967; Waltzler, 1968; Rosenthal, Rinzler, & Wallsh, 1972; Akhtar, & Brenner, 1979). In some reports, those who cut elsewhere on the extremities without suicidal intent are said to experience a "flat, withdrawn, dissociated state," which they characterize as "numb" or "empty" as they mutilate (Feldman, 1988). In contrast, two reports described individuals who self-mutilate as a method of stopping uncomfortable feelings of depersonalization (Favazza, 1987; Miller & Bashkin, 1974). Wise and Reading (1975) reported on a 19-year-old woman with eczematous dermatitis and periods of dissociation.

Bliss (1980) was the first to report the occurrence of self-mutilation with MPD. Of 14 female patients, three (21%) had alter personalities who engaged in self-mutilation without experiencing pain. Two different research groups (Putnam, Guroff, Silberman, Barban, & Post, 1986; Coons, Bowman, & Milstein, 1988) reported that 34% of patients with MPD engaged in self-mutilation. Both Shelley (1981) and Braun (1983) reported single cases of patients with MPD and factitial dermatitis. In one case the dermatitis was induced by an alter personality by rubbing poison ivy on her arm. When she was in the hospital and did not have access to poison ivy, she produced factitial hematomas on her hand (Shelley, 1981). In the other case the factitial dermatitis was induced by the scratching of an alter personality (Brown, 1983).

The purpose of the present study was to determine the extent and nature of self-mutilation among patients with different types of dissociative disorders and what extent their self-

mutilation was related to previous physical and/or sexual abuse in childhood.

## PATIENTS AND METHODS

The patients were the first 100 consecutive patients with dissociative disorders who were enrolled in a dissociative disorders clinic opened in 1985. All were referred by other clinicians, many of whom suspected that their patients suffered some type of dissociative disorder. Eighty-five percent were women. Ninety-seven percent were white and 3% were black or Hispanic. Their mean age was 30.6 years (range 6 - 56 years). Mean educational level was 12.6 years. Marital status included 47% single, 34% married, 18% divorced, and 1% widowed. Fifty-two percent were outpatients. Only 16% had not been abused, either physically or sexually, in childhood.

Many of these patients were part of a larger project to study the phenomenology and course of MPD and the other dissociative disorders (Coons, Bowman, & Milstein, 1988). Information gathered included complete medical and psychiatric histories, a collateral interview with someone who knew the patient well, physical and neurological examination, and psychological testing. All patients were asked about the nature of current and past self-injury which was not of a suicidal nature. Diagnoses of dissociative disorders were made using DSM-III and then DSM-III-R criteria (American Psychiatric Association, 1980; American Psychiatric Association, 1987). Informed consents were obtained for inclusion into the study and for photographs illustrating self-injury.

Statistical analysis to check for significant differences between clinical groups consisted of the use of the  $\chi^2$  <sub>corr</sub>. The phi coefficient was used to check for the correlation between child abuse and self-mutilation.

## RESULTS

Table 1 lists the important characteristics of patients with self-mutilation among the various dissociative disorders. Patients with psychogenic fugue (PF) differed from the other groups in that most were male, they were 10 years older on the average, there was less child abuse, and there was no self-mutilation. The self-mutilation was highest among patients with multiple personality disorder or MPD (48%) but also present in psychogenic amnesia or PA (27%) and dissociative disorder not otherwise specified or DDNOS (23%). In

TABLE I

Characteristics of Patients with Dissociative Disorders.

	MPD	PA	PF	DDNOS
Number of Patients	50	24	4	22
Age, yrs (SD)	30 (8)	31 (8)	40 (9)	31 (9)
Sex				
Female, N(%)	44 (88)	22 (92)	1 (25)	18 (82)
Male, N(%)	6 (12)	2 (8)	3 (75)	4 (18)
History of child abuse				
Physical, N(%)	36 (72)	11 (46)	0	8 (36)
Sexual, N(%)	40 (80)	11 (46)	1 (25)	15 (68)
None, N(%)	0	7 (29)	3 (75)	6 (27)
History of self-mutilation, N(%)	24 (48)	7 (29)	0	5 (23)
Amnesia for self-mutilation, N(%)	14 (58)	2 (29)	0	2 (40)

58% of the patients with MPD amnesia was experienced for the self-mutilation, and in every case where the amnesia was experienced, the self-mutilation was performed by an alter personality. Although two patients each with PA and DDNOS experienced amnesia for the self-mutilation, evidence of alternate personality states could not be found.

Table 2 lists the different types of self-mutilation in patients with dissociative disorders. Cutting (face, extremities, abdomen) was by far the most common form of self-mutilation (63%). Few cases of neurotic excoriation and trichotillomania were found and there were no cases of factitial dermatitis. Cutting on extremities was the most popular place to cut. In the single instance when the patient engaged in massive self-mutilation (amputation of the breast), a schizophrenic psychosis was present as a principal diagnosis with psychogenic amnesia as a secondary diagnosis.

Burns were distinctly uncommon in this series of patients despite anecdotal reports to the contrary by many colleagues.

Statistical analysis was conducted by using the  $\chi^2_{\text{corr}}$  and  $p.05$  as the level of significance. Self-mutilation among patients with all dissociative disorders was more common in women than men ( $p=.093$ ). When compared with MPD, the occurrence of self-mutilation in PF ( $p=.076$ ) and DDNOS ( $p=.059$ ) was less. These later three  $p$ -values were almost statistically significantly different when the phi coefficient was computed (0.157).

dence of amnesia prior to the current episode of emotional illness.

#### Case 2

A 27-year-old single woman was hospitalized for recurrent symptoms of depression, suicidal ideation, and self-mutilation. Current precipitants included stress at work. She had been making superficial cuts on her arms (See Illustration 2) periodically since age 17 under the conscious rationale that she would rather hurt herself than hurt others. Although she could remember the cutting, she was able to dissociate the pain until the next day. Incidentally she had a selective amnesia for events prior to age 10 when her father died suddenly. Some of her memories were regained under a hypnotic abreaction of events surrounding her father's death.

#### Case 3

A 23-year-old woman was hospitalized to prevent her from killing her father who had sexually abused her when she was a child. She had been previously diagnosed with MPD since she had had amnesic episodes plus at least three other alter personality states, two of which were extremely angry and aggressive. She had engaged in self-mutilation for years. The original personality occasionally engaged in self-mutilation to keep from hurting others. She reasoned that it was better to

## CASE EXAMPLES

### Case 1

Mrs. A, a 24-year-old woman, was hospitalized with symptoms of depression and borderline personality disorder six months after the birth of her second child. As a child she had been neglected and physically abused. She unsuccessfully tried to block memories of child abuse from her mind. She had a "foggy" remembrance of several suicide attempts just prior to hospitalization. During her hospitalization she became enraged at ward staff when she was placed in seclusion for unruly behavior. Subsequently, she pulled a large patch of hair from the dorsum of her head (See Illustration 1). She was totally amnesic for this episode of hairpulling. A thorough clinical investigation of the patient including collateral interviews with relatives failed to reveal evi-

TABLE 2

Types of Self-Mutilation in 100 Patients with Dissociative Disorders.

Type*	MPD (n=50) n	PA (n=24) n	PF (n=4) n	DDNOS (n=22) n	TOTAL (n=100) n(%)
Cuts on extremities	15	4	0	5	24 (49)
Hitting self or wall	3	2	0	1	6 (12)
Cuts on face	3	1	0	0	4 (8)
Cuts on abdomen	2	0	0	1	3 (6)
Burns	2	0	0	1	3 (6)
Stabbing vagina	2	0	0	0	2 (4)
Hairpulling	1	1	0	0	2 (4)
Neurotic excoriations	1	1	0	0	2 (4)
Tongue Abrasions	1	0	0	0	1 (2)
Nail Biting	1	0	0	0	1 (2)
Breast Amputation	0	1	0	0	1 (2)

\*Several patients had more than one type of self-mutilation. Percent (%) is expressed by dividing total number of a specific type of self-mutilation by the total number of acts of self-mutilation in this study (n=49).





*Illustration 1 – Case 1  
Episode of hair-pulling associated with psychogenic amnesia.*



*Illustration 2 – Case 2  
Multiple small self-inflicted lacerations associated with partial dissociation.*

hurt herself than to hurt others. Most of the time, however, she was unaware of the self-mutilation as she would suddenly find herself with new cuts, abrasions, and excoriations on the anterior aspects of her lower legs (See Illustration 3). Communication with her angry alters revealed that they were punishing the original personality for revealing secrets in therapy, such as

previous child abuse.

#### *Case 4*

A 33-year-old divorced woman was seen for symptoms of depression which occurred following rejection by her boyfriend. Further exploration revealed that she had been physically and sexually abused as a child. She was amnesic for some events in childhood as well as having current amnesic episodes. An alter personality was discovered. During her treatment she indicated that she habitually bit her fingernails (See Illustration 4). The nailbiting began at age 8 in order to prevent her mother from cutting her nails in an abusive fashion. Interestingly the nailbiting did not cease after the abreaction of her mother's abuse, but finally stopped when she began to play a musical instrument that required neatly manicured nails.

## DISCUSSION

The high incidence of self-mutilation among patients with dissociative disorders in this study, particularly among MPD patients, calls for increased vigilance among clinicians for evidence of dissociation in the patient demonstrating such behaviors. Further, the existence of self-mutilation should alert the clinician to the possibility of an abusive childhood history. Although denial of self-mutilation may signify a factitious disorder, the clinician should also consider the various dissociative disorders and search diligently for evidence of memory loss, which may not be immediately apparent (Kluft, 1988). The clinician should have a repertoire of questions about memory loss and automatic activity (Kluft, 1988), and certainly should consider the use of collateral interviews with friends or relatives (Coons, 1980).

As the case examples suggest, the patients with dissociative disorders in this study were a very diverse group with vastly different degrees of psychopathology. The patients with MPD appeared to be more highly disabled than the patients with other dissociative disorders. Patients with PA or PF often had other disorders such as schizophrenia, major depression, or borderline personality disorder which were primary diagnoses. Patients with DDNOS, like patients

with MPD, often had multiple co-existent diagnoses.

Another finding from this study which deserves special mention is the apparent lack of an association between self-mutilation and psychogenic fugue in men. Several large series of fugue patients (Stengel, 1941, 1943; Parfitt & Gall, 1944; Berrington & Liddell, 1956) also failed to reveal such an association. This preliminary finding, however, awaits replication through future studies with greater numbers of fugue patients.

Perhaps the most challenging part of working with a patient who presents with self-mutilation is trying to discover the motivation for such self-injury. This is most difficult if the patient either denies or does not remember the self-mutilation and is, therefore, unable to discuss it. Recently both Feldman (1988) and Favazza (1987; 1989) did extensive reviews on self-mutilation. Interested readers should consult their extensive bibliographies for further references on specific types of self-mutilation. Their explanations of why people self-mutilate are described below.

Self-mutilation may be a normal phenomenon, and, as such, be a part of either cultural custom or religious ritual. Examples of normal religious self-mutilation include the burning, piercing, and self-flagellation which occur in certain Christian, Hindu, and Islamic religious festivals. Examples of normal cultural self-mutilation include ear and nose piercing, tattooing, foot-binding, head-molding, using neck and ankle rings, inserting lip and ear disks, etc.

Severe self-mutilation, such as the enucleation of an eye or the cutting off of a breast is likely due to an affective or schizophrenic psychosis and could be due to command hallucinations, a grandiose identification with Christ, the delusional perception that one is wicked or sinful, or simply a delusion of demonic influence. An example of this type of severe self-

mutilation in psychosis could be the plucking out of an eye due to the belief that one is wicked. This act might almost seem logical if it is performed in conjunction with an overly literal interpretation of the Biblical passage which instructs sinners to pluck out or cut off the offending part.

Sexual motivations for self-mutilation of the sexual organs are plentiful, and include the desire to change sex, a repudiation of sexuality, the desire to control hypersexuality, or even an enhancement of sexuality. For example, some male transsexuals have been known to remove part or all of their scrotal contents if surgery is denied.

Self-mutilation has long been recognized as a way of venting aggression, particularly against the self, and has been termed a "partial suicide" (Berrington & Liddell, 1956). Self-mutilation may relieve other feelings such as tension, guilt, anxiety,



Illustration 3 - Case 3  
Cuts, excoriations, and abrasions in a patient with MPD.



Illustration 4 - Case 4  
Onychophagia (nail-biting) in a patient with MPD.

depersonalization, or it may be used to provide gratification such as gaining attention from others, attaining a feeling of euphoria, or providing a sense of security. All of these later motivations have been seen in individuals with borderline personality disorder.

Self-mutilation has been observed to be epidemic or contagious on inpatient adolescent psychiatric units or in correctional institutions. Generally, when it occurs in such situations, it is a cry for attention or a method of avoiding responsibility and gaining admission to a less restrictive facility.

Finally, self-mutilation has been observed to occur as a symptom of certain organic mental disorders and certain forms of mental retardation. An example of the latter would be the Lesch-Nyhan syndrome, a condition of disordered purine metabolism occurring as a consequence of a genetic enzyme deficiency, which is characterized by severe mental retardation and recurrent self-mutilation.

This study suggests that patients with dissociative disorders self-mutilate for a variety of reasons. In our experience one of the most common reasons for self-mutilation in individuals who have been severely abused is because of a pervasive lack of self-esteem. These individuals reason that since they have been abused that they must be bad and deserve punishment. At times they develop a dissociated part whose function is to provide such punishment, often through self-mutilation. Other motivations for self-mutilation in patients with dissociative disorders include turning anger inward (case 1), hurting oneself instead of others (cases 2 and 3), avoiding telling "secrets" and resisting discussion of abuse (case 3), avoiding further punishment (case 4), repudiating sexuality (Coons, Ascher-Svanum, & Bellis, 1986), and avoiding the dysphoric feeling of depersonalization (Favazza, 1987). In addition we have seen patients with dissociative disorders who self-mutilate to relieve feelings of anxiety, tension, and guilt as well as to gain attention from others. Often two or three such motivating factors are operative at the same time in the same patient.

This study suggests future areas of research. For example, what is the incidence of dissociation and dissociative disorders in patients who self-mutilate? Such patients could be given the Dissociative Experience Scale (Bernstein & Putnam, 1986), a 28-item questionnaire which takes only 10 minutes to administer and a few minutes to score. It is an excellent screening device for dissociation, and patients who have significant scores could then be interviewed in depth to determine if a dissociative disorder is present.

In summary it appears that MPD, PA, and DDNOS are all characterized by significant rates of self-mutilation. When such self-abuse occurs, amnesia is often present. Reasons for such self-injury are varied but most commonly such self-mutilation represents a form of self-punishment. ■

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