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Review Article

Personality Disorder and Self-wounding

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At least 1 in 600 adults wound themselves sufficiently to need hospital treatment. More men than women do it, although more women receive psychological treatment. Many have a history of sexual or physical abuse. Self-wounding differs from other self-harm in being aimed neither at mutilation nor at death. Self-wounding coerces others and relieves personal distress. Repeated self-wounding is one criterion of borderline personality disorder but we prefer to consider it an 'addictive' behaviour rather than an expression of a wider disorder. Psychological management may need to be augmented by drug or social treatment. Carers, including professional carers, usually need help to contain the turbulence that self-wounding produces.

Favazza (1987), in an excellent review, gives numerous examples of the widespread human interest in hand-crafting the body which range from head-moulding in ancient Egypt, Central and North America and modern Europe, to Chinese foot-binding, which produced feet that were so small they could not bear their owner unsupported. Other types of anatomical rearrangement in the list include trepanation of the skull (world-wide, prehistoric), finger amputation (Pacific, Africa), and various types of genital rearrangement (Australia, Africa). In fact, he concludes that only the eyes and the anus have never been the target of socially sanctioned mutilation.

Such practices fill many Westerners with horror although, it must be said, Western practices of ear- and nose-piercing, circumcision, and skin-bronzing through radiation exposure are rarely abhorred with equal vigour. One reason for this may be the special status attached to the healthy (whole) body and the denigration of deformity in this culture. The pursuit of health and wholeness has become morally good, and deliberate self-injury is proportionally bad or 'sick'.

This is not so for other cultures, and has not always been so in the West. Mortification of the flesh has been an important theme in Christianity, resulting in epidemics of self-mutilation, notably the flagellants of the 14th century who, as disturbingly portrayed in Bergman's film *The Seventh Seal*, wandered in bands across Europe whipping themselves. Religiously motivated self-wounding by slashing, tearing, or ripping the skin and subcutaneous structures is also practised throughout the world. Menninger (1935) mentions Tongans, Chinese thigh-cutters, South American Indians, Bengalis, and a Russian sect of castrati, the skoptsi. Favazza (1987) adds dervishes in Morocco, Tamils in South India, North American Indians, Africans and native Australians. No doubt there are many others. Mutilation is a central theme in many religions. Christ was crucified, Odin gave an eye for knowledge, Attis/Osiris was castrated, and even Gautama Buddha is said in some traditions to have fed his own flesh to a hungry tiger (Evans-Wentz, 1968).

Favazza argues that self-mutilation in the context of a group and with a religious aim is psychologically distinct from the self-mutilation which leads to psychiatric referral, and quotes from Turner (1977): "deviant self-mutilators are not liminal objects . . . and the flow of their blood opens no significant channels between God and Man" (Favazza, 1987, p. 44). However, there may be an association between the familiarity of culturally sanctioned self-mutilation and attitudes to self-harm. Members of cultures in which the normative response to suffering is bathos are likely to have different motives for self-harm than the members of cultures where pathos is the rule. This leads to the speculation that the horror provoked by wounds, and the efforts to conceal them, may be in direct proportion to the frequency with which deviant self-wounding occurs.

Self-harm, self-injury, self-mutilation and self-wounding: some definitions

There is no generally agreed terminology but we will use the expression first put forward by Morgan (1979), 'deliberate self-harm' (or, simply, 'self-harm'), as the most general term for behaviour whose main purpose is bodily derangement. Deliberate self-harm ('parasuicide', 'attempted suicide', 'self-injury') may be brought about enterally or parenterally. The former we shall term self-poisoning ('overdosing'), the latter – the main topic of this review – self-injury ('slashing, 'cutting', 'wrist-cutting').

Simpson (1976) distinguishes 'wrist-slashers' from "the psychotic individual who mutilates himself" and "the person who makes one deep and dangerous cut in a highly lethal suicide attempt", and we follow his practice in differentiating between these different

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Table 1
Some characteristics of different types of self-injury

	Self-mutilation			Self-wounding		
	pathological	religious	motivated	reactive or habitual	depressive	motivated
Associated with:						
unequivocal depression	−	−	−	−	+	−
borderline phenomena	−	−	−	+	−	+/−
psychosis	+	−	−	−	−	−
other habit disorders	−	−	−	+	−	−
Tendency to repeat many times	−	−	−	+	−	+
Much commoner in youth	−	−	−	+	−	+
Surgical correction often needed	+	+	+	−	+	−
Major anatomical change	+	−	+	−	−	−
May affect vital structures	+	−	−			
Commonly life-threatening				−	+	−
Medical care rejected	−	−	−	+	−	−
Cause of injury concealed	−	−	+	−	−	+

forms of self-injury, which we term 'self-wounding' (e.g. cutting, slashing), and 'self-mutilation' (e.g. castration, enucleation of the eye: see Table 1).

Dermatitis artefacta, malingering, and other types of socially motivated self-mutilation

Major anatomical change may occur as a secondary consequence of repeated self-injury, for example in people with learning disabilities who repeatedly bite or bang themselves. However, anatomical change is most commonly associated with those types of self-injury which are directed towards its production. Such self-mutilation may be pathological, performed in the context of a religious ritual, or be the means to a desired end ('motivated'), in which case the factitious nature of the injury is concealed. Motives include profit for the professional beggar, the avoidance of unpleasant duties or consequences in the case of the malingerer, or the simulation of a pathological lesion in order, presumably, to obtain medical care.

Pathological lesions may be simulated in Munchausen's syndrome with or without actual self-mutilation, but in the related dermatitis artefacta, some degree of self-harm always occurs. Sneddon & Sneddon (1975) have described 45 patients, 38 of whom were women, who presented to hospital with self-inflicted skin lesions which included excoriations, burns, bruising, and ligature-induced lesions, but no cuts. Their ages ranged from 9 to 81 years, and they were suffering from a variety of psychiatric disorders which included dementia and learning disability. Of the 33 who could be traced 12 years later, 13 (39.4%) were still damaging their skins.

It is arguable whether such acts are *prima facie* evidence of personality disorder: they are certainly suggestive of limited social resources and abnormal stereotyped coping strategies.

Pathological self-mutilation versus self-wounding

The amount of suffering that is experienced, although it may be considerable, does not appear to be relevant to final satisfaction, which may be genuine and lasting, with the result of self-mutilation. Those who wound themselves, on the other hand, often take steps to prolong or increase their suffering, but are indifferent to the final anatomical consequences.

The stated intention of self-mutilation is often to rid oneself of an offending organ or body part, typically one to which one's culture attributes some moral and agentive qualities. Common targets are the eye (the evil eye, the roving eye), the genitalia (John Thomas), or the tongue (the filthy tongue, the tongue that runs away with you). Self-wounding may be directed to the genitalia but more often involves areas where wounds are likely to produce the greatest anxiety, for example the skin of the wrists, or the neck, which overlies vulnerable vital structures.

Self-mutilation is rare in our psychiatric experience, and certainly much rarer than other forms of self-injury. By contrast, treated rates of self-mutilation have been observed in Zambia to be higher than treated rates of self-wounding (Vanvaria & Haworth, personal communication), and this may be true of hospital practice in many developing countries. This may be because antisocial behaviour is more likely to be associated with self-mutilation, and is more likely to lead to psychiatric referral than self-injury; or it may represent a real excess prevalence of self-wounding in the developed world, where medical care is much more widely available. It seems less likely

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that psychosis is more often associated with self-mutilation in the developing world.

Case descriptions of self-mutilation are, however, published more often than reports of self-wounding, perhaps because their more lurid nature appeals to journal editors. Many of them concern patients with psychosis, and it is commonly stated in literature reviews that there is a particular association between the two conditions. Thus Konicki & Schulz (1989, p. 556) state that "patients who injure themselves without clear suicidal intent can be divided into two classes: the psychotic patients and the patients with severe character pathology (personality disorders)". They follow Pattinson & Kahan (1983) in using an age of first self-harm before 30 as a distinguishing criterion of the latter, 'early-onset' type. Walsh & Rosen (1988) distinguish between manipulative and self-punishing self-mutilators (which we subsume under our term 'self-wounding') and psychotic self-mutilators. Favazza (1989) considers that most of the latter, whom he terms 'major self-mutilators', are either psychotic, intoxicated with drugs, or suffering from an organic brain syndrome.

The 'self-wounding syndrome' and other types of self-wounding

As already noted, some people who are almost always severely depressed may wound themselves with the intention of killing themselves. Self-wounding may also occur as an incidental by-product of other behaviour, notably sexual practices: urethral and anal stimulation may lead to trauma, for example, and asphyxiation during masturbation may lead to haemorrhage or brain damage.

We distinguish these types from reactive or habitual self-wounding which is an end in itself (Table 1).

Epidemiology

Robinson & Duffy (1989) found that 656 of the 7887 patients admitted to the Edinburgh Regional Poisoning Treatment Centre between 1980 and 1986 had injured themselves. This is close to the 11.7% reported by Weissman (1975) and the 11.2% found by Clendenin & Murphy (1971). However, in a more comprehensive sub-study, a higher proportion of self-wounding was found in patients who discharged themselves or who were referred to other (mainly surgical) wards, and the ratio of self-wounding to self-poisoning was about one to two when these other patients were included. From this and from recently published rates of non-fatal self-harm in Edinburgh (Kreitman, 1990), it can be estimated that 1 in 600 adults deliberately harm themselves sufficiently to require hospital treatment. This is likely to be an underestimate since some deliberate self-harm will be concealed by relatives, friends or the person themselves, or will not be judged sufficiently severe to require hospital assessment.

A more thorough study in Ontario in the early 1970s surveyed incidents of 'self-injury' over 12 months in general practices, nursing homes, and gaols as well as hospitals (Johnson *et al*, 1975). The authors report an annual rate of 730 episodes of self-injury per 100 000 population, committed by 559 individuals per 100 000 population, but guessed that the 'true' rate was 1433 episodes per 100 000. Self-cutting accounted for 17.6% of the episodes.

In Favazza & Conterio's (1989) series of 240 women who regularly wounded themselves, the commonest method used was cutting (72%), followed by skin-burning (35%), hitting or punching parts of the body (30%), interfering with wound-healing (22%), scratching (22%), hair-pulling (10%), and breaking bones (8%). Damage was to the arms, especially the wrists (74%), the legs (44%), the abdomen (25%), the head (23%), the chest (18%), and the genitalia, including the vaginal wall (8%).

Damage is commonly produced by broken glass, needles, open scissors, razor blades, knives, hammers, cigarettes, irons, and hotplates, but almost any available household object can be adapted for the purpose. Other patients known to us have injected septic urine into the skin, tied tourniquets on the arms and legs, thrown themselves down or in front of vehicles, partly strangled themselves with coat-hangers, hanged themselves, and abused aperients sufficiently to produce incontinence. People, especially people with learning difficulties, may also bang their heads, swallow foreign objects, or bite themselves. No doubt this list could be expanded, seemingly the only limitation being the imagination of the patient.

According to Simpson (1976), "the typical wrist-cutter . . . is likely to be a young (usually 16–24 years of age) attractive woman," but this may reflect only the composition of those patients who are retained in treatment. Two surveys of patients entering treatment (Lester & Beck, 1980; Robinson & Duffy, 1989) show that self-mutilation is commoner in men than women, although they confirm the association with youth.

Self-wounding, once begun, tends to be repeated. In Favazza & Conterio's (1989) sample of women, which was partly recruited by advertisement and may therefore have been biased towards a more severe or chronic group, cutting often began in the early teens, and half the sample had wounded themselves on more than 50 occasions. Peak incidence, according

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to Favazza (1987), is in the early teens, and self-wounding typically continues for 5–10 years.

Association with other forms of self-harm

Self-wounding is associated with problem drinking (Fox & Weissman, 1975; Lester & Beck, 1980; Robinson & Duffy, 1989; Favazza & Conterio, 1989); drug misuse (Waldenberg, 1972; Simpson, 1976), particularly of oral drugs (Gossop *et al*, 1975); eating disorders (Simpson, 1976), especially bulimia nervosa (Lacey & Evans, 1986); offending (Waldenburg, 1972; Lacey & Evans, 1986), particularly violent offending (Bach-y-Rita, 1974); and self-poisoning, particularly repeated overdosing (Robinson & Duffy, 1989). Others have proposed a 'deliberate self-harm syndrome' (Morgan, 1979; Kahan & Pattison, 1984) or a 'wrist-cutter syndrome' (Graff & Malin, 1967).

Self-wounding and personality disorder

Repeated self-wounding is one of the symptoms of borderline personality disorder in DSM-III-R (American Psychiatric Association, 1987) or of other 'flamboyant' personality disorders such as histrionic and narcissistic personality disorder (Konicki & Schulz, 1989) and there is an association between self-wounding and other symptoms of borderline personality disorder. There is also a close association with 'multiple personality disorder', a syndrome which lies on the borderline between hysteria and personality disorder. Putnam *et al* (1986), in one of the largest series of patients with multiple personality disorder to be published, found that 34% of patients had deliberately wounded themselves.

Lacey & Evans (1986) made an extensive review of the literature concerning habitual antisocial behaviour, and proposed that the association between them is attributable to a group of 'multi-impulsive patients' who suffer from a "deficit in impulse control which is closely related to difficulty coping with depressive emotions and anxiety". They admit that they could be "simply noting variants of borderline personality disorder" and their classification shares the same roots in psychoanalytic psychology, although putting 'impulses' and 'control' in centre stage instead of object relations.

Lacey & Evans' proposal is for a new personality disorder, mainly because of the "remarkable chronicity" of the disorder. However, this is true of other disorders which they classify as impulsive, such as alcoholism and anorexia nervosa, which would not normally be considered as personality disorders. We think that there is a case for a diagnostic category similar to conduct disorder in childhood which lies between current adult categories of illness and personality disorder: the deliberate self-harm syndrome of Kahan & Pattison (1984) is an example. Whether this syndrome should be extended to include the impulse disorders which Lacey & Evans lump together is a topic for further research.

The validity of personality disorder diagnoses has been criticised (see Tantam, 1988; Lewis & Appleby, 1988, for a fuller discussion) and there is no personality disorder diagnosis which is unique to self-wounding. In one study (Gardner & Gardner, 1975) personality disorder was no more frequently diagnosed in psychiatric in-patients who had harmed themselves than in a control group of non-psychotic psychiatric in-patients.

The attribution of upsetting behaviour to abnormal personality tends to blunt the normal caring response of compassion and commonsense firmness, and may encourage an expectation of irresponsibility and the 'secondary deviance' of which labelling theorists have written (Lemert, 1967). Too often, further inquiry into the reasons for the behaviour, in particular into the situational determinants of self-wounding, stops once a diagnosis is made.

Disturbed behaviour is produced by disturbing situations or disturbed relationships as well as by disturbed personality, but the former is much harder to investigate and has, since the early days of psychoanalysis (Masson, 1985), been as systematically neglected by many psychotherapists as it has by neuropsychiatrists.

Hawton *et al*'s (1982) classification of self-poisoning among adolescents, which is applicable to other types of self-harm, has the advantage that it links impulsive behaviour and social relationships but without any comment on personality. They propose that self-poisoning may be (a) a response to conflict in one relationship, other relationships being generally satisfactory; (b) a response to an acute exacerbation of longer-standing and more pervasive problems in relationships; and (c) a less clearly motivated behaviour, part of a complex of impulsive behaviours, and associated with a lack of close or satisfying relationships.

Hawton himself considers that repeated self-harm is a symptom of another disorder, usually a personality disorder. We lean more to the arguments of other authors who argue for a diagnostic category of repeated, deliberate self-harm, *sui generis*, which could also include other impulsive and self-destructive behaviours, for instance those considered by Lacey & Evans (1986) to be part of the 'multi-impulsivist' personality.

Separation of a deliberate self-harm syndrome from the pervasive impairment of relationships and

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emotions characteristic of personality disorder would have the added advantage that it would make it possible to investigate how often repeated self-wounding leads to an impairment in relationships and emotions: whether, in other words, personality abnormality may be consequent on, rather than antecedent to, repeated self-harm.

Self-wounding and adversity

Emerson (1914), one of the first to describe a case of self-cutting, mentioned both abuse and disturbed relationships within the family. Zanarini *et al* (1989) found that patients with borderline personality disorder diagnoses were more likely than controls to have a history of neglect or abuse, Briere & Zaidi (1989) that a history of sexual abuse was linked to self-harm, substance abuse, sexual difficulties, multiple diagnoses and borderline personality disorder diagnoses, and Herman (1989) that 17 of 21 patients with borderline personality gave histories of trauma (71% physical, 68% sexual, 62% witnessing domestic violence).

Abuse for which the victim feels to blame, as is often the case with incest, may be particularly likely to lead to self-harm (Shapiro, 1987). Rape may have similar psychological effects, and may also lead to self-harm (Greenspan & Samuel, 1989).

Aetiology

This subject has recently been reviewed in detail (Favazza, 1989; Tantam & Whittaker, 1992). We agree with Favazza that the initial acts of self-wounding may be a form of self-help, perhaps to signal an intolerable situation, perhaps to bring pressure to bear, perhaps as a release. The combination of being trapped and being neglected seems particularly likely to lead to self-wounding, whether in the caged primate, in the solitary prisoner, or in the adolescent trapped in a disturbed family. The choice of self-wounding – as against self-poisoning, antisocial behaviour, or drug abuse to name but three other possibilities – may be dictated by a previous medical career or by imitation.

Repetition is made more likely by the persistence of the original circumstances, by beliefs about self-wounding, by the emotional responses that the act produces, by medicalisation, and by euphoriant mood changes induced by self-wounding. Little is known about the latter, but those patients who report them may be at special risk of becoming 'hooked' on self-wounding.

Treatment

This has recently been reviewed by Feldman (1988), who stresses the lack of comparative studies and the reliance on single case reports.

Physical treatment

Neurosurgery. Vaernet & Madsen (1970) reported that amygdalectomy produced improvement in violent patients who mutilated themselves in response, probably, to psychotic experiences but it is not clear that these results would apply to the self-harming patients we are considering here. Burnham (1969) reported a single patient whose repeated self-cutting was treated by pre-frontal leucotomy. Her self-harm was diminished by the operation which, in the author's words, she 'provoked', but at considerable cost to her subsequent initiative and quality of life.

ECT has also been used but seems to have little to recommend it. Improvements tend, if they occur at all, to be short-lived (Feldman, 1988).

Drug treatment

Most types of psychotropic drug have been used at one time or another, including amphetamines (Favazza, 1987).

Antidepressants suggest themselves because of the obvious misery and low self-esteem of many people who repeatedly harm themselves. They may also complain of poor sleep, and have appetite and weight abnormalities which further suggest the presence of a depressive illness. The older antidepressants had the disadvantage of being highly dangerous in overdose, and this usually outweighed any possible advantage. Monoamine oxidase inhibitors have been found in one study (Cowdry & Gardner, 1988) to be associated with a non-significant reduction in self-wounding in patients diagnosed as having borderline personality disorder; the risk of abuse and of serious side-effects in patients who are not compliant with dietary advice is considerable.

Newer antidepressants are safer in overdose and those that act on serotonergic transmission may, it has been proposed, have a particular effect on impulsive behaviour and on obsessional symptoms which may sometimes be associated with self-damaging behaviour (Gardner & Gardner, 1975; Gupta *et al*, 1986).

One of the new 5-HT reuptake inhibitors has received adverse publicity about its relation to both suicidal and aggressive behaviour, but in a recent, open, study in 22 borderline and schizotypal patients its use in high dose was associated with a significant reduction in self-injury (Markovitz *et al*, 1991). Of

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the 22, 13 met DSM-III-R criteria for major depression, but the authors report that the presence or absence of depression was not related to outcome. This suggests a direct effect of serotonergic drugs on self-injury, and opens up a hopeful avenue of treatment possibilities. But, until further studies have been performed, it is still probably the best advice to avoid any antidepressant except when there is definite evidence of a recent onset of a depressive syndrome associated with a marked change of social and psychological function, or definite evidence of endogenous symptoms of depression.

Lithium has also been used in the treatment of self-harm, particularly when associated with learning disability. Again, reports are conflicting and often only anecdotal. It has been suggested that lithium's reputation rests on its value for those few patients whose self-harm is associated with undiagnosed recurrent depression. The same explanation may apply to the occasional reports of the value of anticonvulsants such as carbamazepine and sodium valproate, although a specific benefit in patients diagnosed as having borderline personality disorder has been claimed (Gardner & Cowdry, 1986). Lithium also has the disadvantage of a low therapeutic index.

Neuroleptics, including depot neuroleptics, are regularly used in clinical practice and were found to reduce the frequency of self-injury in one placebo-controlled study (Montgomery & Montgomery, 1982). *Sedatives* such as the benzodiazepines, while they may alleviate anxiety, can also result in disinhibition or produce 'paradoxical responses' (Feldman, 1988), resulting in an exacerbation of self-harming behaviour.

In conclusion, medication carefully chosen with clear therapeutic motives and for specific symptoms may well be of value in this group of patients but there is no evidence that drugs have any direct effect on the propensity to harm the self, and considerable evidence that they are often abused, sometimes with fatal consequences. The reader may well be advised to consider Lion & Conn's (1982) suggestion. "It is obvious that there is no drug of choice for the self mutilating patient and the clinician might best focus on the avoidance of disinhibitory substances such as alcohol" (p. 787) and, we might add, benzodiazepines.

Psychological treatment

Perhaps the largest body of literature available focuses on the analytic treatment of self-harm. It contains many practical hints about management which are applicable to long-term relationships between doctor and self-harming patient irrespective of the type of treatment that the doctor places faith in. Emerson (1914) writes of his patient that "she was encouraged to believe in her own capacity . . . opportunity for sublimation was obtained for the patient and she was given a chance". Crabtree (1967) noted that asking the patient about fantasies was counterproductive. Kafka (1969) stressed the importance of making explicit the feelings that the therapist arouses in the patient, and vice versa. Novotny (1972) stressed the need for flexibility within the therapeutic relationship and commented on the need for "matter of fact" handling of self-mutilatory behaviour.

Many of these practical manoeuvres can be seen as a means of maintaining the closest, least coercive and most enabling relationship with the patient which is possible in the circumstances: maintaining, that is, a 'holding' or 'containing' relationship as it is often termed after Winnicott and Balint.

Compulsory treatment

Containing the patient is not easy when she is threatening self-harm which is, or is thought to be, potentially fatal. Is some degree of coercion justified in these circumstances? Feldman (1988) points out that excessive restriction is likely to lead to an increase in self-harm, yet, paradoxically, removing those restrictions may also increase its frequency. Compulsory treatment is possible under the terms of the UK Mental Health Act, even in the absence of mental illness, if the patient's behaviour is such that a psychiatrist would diagnose a personality disorder and if deterioration in the patient's condition can thereby be prevented. There is little evidence, however, to enable a rational decision about the latter.

Every psychiatrist has stories of patients whose bloodcurdling threats were countered by professional refusal to 'take responsibility for your actions' with apparent success: at least, the patients survived. Some also know of patients who killed themselves in similar circumstances, although few of us recount these stories with as much readiness. It seems to us that detention is sometimes inescapable, that very occasionally it helps and that quite often it makes subsequent self-harm worse. Our clinical experience suggests that the decision should always be shared with as many of the staff team directly dealing with the patient as possible, that hospital staff are often more over-protective than social workers and other community carers, and that the period of compulsory treatment should be for the shortest possible period, which means not waiting until the situation has calmed down completely.

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Hospital treatment

Many authors recommend the complete avoidance of hospital admission (e.g. Dawson, 1988) on the basis that the hospital environment removes responsibility from patients, reinforces the perception that the patient is ill, and exposes the patient to what is, very often, a divided staff. However, good results are also reported from in-patient treatment programmes in which these problems are anticipated and steps taken to remedy them. We consider that hospital admission is generally best avoided unless there is a specialist treatment unit with experienced staff, although it may sometimes be necessary to deal with a crisis. Hospital admission which has no purpose other than to protect the patient against herself should be minimised: a threat of suicide is not enough, in itself, to justify admission.

Specific therapeutic procedures

Hypnosis. Hypnosis has proved useful in the treatment of some unwanted habits, and there is at least one report of its use in deliberate self-wounding (Malan & Berardi, 1987) which indicates that it is well liked by patients who use it mainly as a means of reducing the tension that would otherwise lead to self-wounding.

Analytical psychotherapy. Analysts from Emerson (1914) onwards have stressed the value of translating the action of self-wounding into the feelings which it, supposedly, expresses, for example fears of abandonment and feelings of powerlessness (Kwawer, 1980), anger, hostility and dependence (Feldman, 1988), and sexual feelings (Favazza, 1987).

Nelson & Grunebaum (1971) followed up several recurrent cutters and over the course of the years asked them to identify the factors they felt most significant in their improvement. The factors they identified included the verbal capacity to express feelings, the presence of an accepting therapist with constructive action in crises and, in addition, the control of psychosis when this was present. However, they also note that insight into the genesis of the cutting behaviour did not afford relief.

If the retrospective judgements of these patients are correct and if they apply to other patients, the interpretation of feelings is effective if it assists the development of the relationship with the therapist, but not if it seeks to explain the historical development of self-harm. A concentration of interventions that increase the empathy and closeness between the therapist and the patient, rather than on plausible reconstructions of past determinants of present feelings, is therefore indicated. Intervention is most important when the patient is disappointed or angry with the therapist, since, unless these feelings are quickly identified, they may lead to the patient rejecting the therapist.

The analytic approach is not without side-effects. Silver (1985) lists these as "escalation of self-harm, substance abuse, suicide attempts, job losses and school failure" and later warns against "premature interpretation, a sudden threat of abandonment or a misperceived narcissistic attack". Given the frequency of these events in patients who harm themselves it is difficult to know whether there is a specific association between analytic practice and adverse events, but the point that he makes later in the same paper is well-taken: ". . . most of the theoretical underpinnings of psychodynamic therapy originally evolved from treating much less severely disturbed patients than those described. . . . As we move further away from the kinds of patients that the theories were initially based on, these models bear less directly on the clinical strategies or techniques used, while more flexible and novel treatment approaches must be encouraged".

These strictures are less applicable to those modern psychodynamic approaches which stress the actual, here-and-now relationship between patient and therapist, but even here Kernberg, one of the best-known practitioners of this approach, emphasises the skills that the therapist needs to sustain a working relationship with the patient rather than his or her interpretative abilities (Kernberg, 1987).

Structuring the therapeutic relationship by means of diagrams, letters, or contracts seems to work well for some therapists (Lansky, 1988; Ryle *et al*, 1990) perhaps because these methods ensure that the patient has some responsibility for, and control over, the treatment. Both Ryle and Lansky advocate explanation to patients and, where appropriate, relatives, Ryle in terms of ego-states, and Lansky in terms of regressive crises brought on by a failure of special treatment by others. Ryle advocates the use of a reformulation letter for this, coupled with diagrams of the relation of ego-states in relation to traps, snags, and predicaments. Lansky, who runs an in-patient programme, gives patients a recorded tape.

Prokaletic therapy. Kraupl Taylor's treatment method (Kraupl Taylor, 1969) combines behavioural, analytic and cognitive elements, although anticipating the formulation of the latter by Beck. It is unusual in having been specifically developed for deliberate self-harm. Taylor recognises the aversive nature of many interpretations, and advocates their deliberate use in this way. Thus the therapist may be invited to respond to self-wounding with solicitude, but instead expresses distaste at what he or she interprets

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to be a masturbation substitute. There has been no systematic evaluation.

Behavioural treatment. Behavioural treatment has been used widely in the treatment of self-harm by people with learning disabilities (Wolf *et al*, 1967; Lovaas & Simmons, 1969; Jones *et al*, 1974; Azrin *et al*, 1975). Corter *et al* (1971) compared the elimination of social response to self-harm, the reinforcement of non-injurious behaviour, and punishment by electrical shock on the frequency of face-banging and slapping, hair-pulling, and other self-harm by four people with profound learning disability. Punishment was clearly more effective than the other treatments but its effects were restricted to the setting in which it was delivered and its long-term consequences were not evaluated.

Behavioural techniques are also often used for people whose self-wounding is not associated with learning disability, but there has been no evaluation of their value in this rather different group.

Punishment may be an overt or a covert element in behavioural treatment but, irrespective of the ethical issues concerned, there is no evidence that it is of benefit. Punishment inevitably leads to a deterioration of the relationship between staff and patient and this may outweigh any transient value that it has in reducing the frequency of self-wounding. It would also be wrong to assume that punishment is always aversive. In the very disturbed families from which many people who repeatedly harm themselves come, punishment may have been a more desirable parental response than indifference or seduction.

Most clinicians will have anecdotes illustrating that the frequency of a particular patient's self-harm was altered by a change in contingencies, but the relationship between action and consequence is more complex than can be explained by conditioning or reinforcement. Carr (1977) has, however, made a case for the operant conditioning of self-wounding and both Linehan *et al* (1987) and Walsh & Rosen (1988) have put forward suggested treatment programmes based on cognitive and behavioural principles.

Although it seems reasonable, on the basis of what is currently known, to avoid 'rewarding' self-harm by extra attention or concern, there may be circumstances in which the patient's distress does need recognition and does need some special effort on the part of carers. Staff and patient need to be clear that the expression of distressed feelings will evoke appropriate concern, but that self-harm will be met with whatever medical treatment is needed to repair the damage but no particular emotional response. There is no place for punishment or criticism of self-harm, however much of a relief it may be for the staff to express these feelings. Aversion therapy is only effective if the operant response is, in fact, aversive: but there is every reason to believe that punishment may be rewarding for many people who repeatedly wound themselves.

Cognitive therapy. This relatively recent treatment approach aims to change the pathological thinking which is thought to lead to the repetition of self-wounding. Kendall & Braswell (1984), Walsh & Rosen (1988), and Salkovkis *et al* (1990) have given accounts of its application. Walsh & Rosen (1988) suggest the following steps: having patients monitor their thoughts, demonstrating the link between thought and self-wounding, challenging the patient to change by, for example, relabelling self-harm as disrespect to the body and therefore oneself, and focusing on the patient's positive qualities.

Walsh & Rosen (1988) argue that therapists need to restructure the client's tendency to act into an 'active thinking style', thereby helping the client to think differently about the way they communicate and about their relationships. This is particularly important as self-wounding may well have become the main form of communication of feelings and may have become an important part of the individual's relationships. Both Walsh & Rosen (1988) and Favazza (1987) comment that these individuals are very deficient in both social and relationship skills, and here the therapist can help in shaping and reinforcing social skills. Through the relationship with the therapist the patient may well learn to cope with the realities of life, developing some form of tolerance to interpersonal relationships. Walsh & Rosen (1988) argue for the value of desensitisation to relationship stresses as well as finding alternative routes to tension reduction.

Salkovkis *et al* (1990) reported on a controlled trial of problem-solving therapy provided by a community psychiatric nurse to 12 adults who had recently 'made a suicide attempt' and had taken at least two previous overdoses. Treated patients were less depressed and hopeless, and the likelihood of immediate repetition was reduced compared with eight matched controls receiving standard treatment. This provides some evidence that a cognitive approach is applicable to people who repeatedly harm themselves, although it seems likely (it is not specified in the paper) that the patients in this study had poisoned rather than wounded themselves. The latter may be a tougher group to treat.

'Detoxification'. The addiction hypothesis of self-wounding discussed above implies that treatment must take account of the 'withdrawal symptoms' when it is given up. Favazza (1987) has outlined the steps in a detoxification-orientated treatment

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programme: voluntarily agreed observation of sufficient closeness to ensure that any self-harm can be prevented, if necessary by restraint; encouragement of the ventilation of the patient's feelings; "consistent and predictable reality experiences" provided by staff; and avoidance of the suppression of feelings by medication. Only patients with considerable motivation succeed with this approach.

Detoxification from opioids leads to dysphoria which can be abolished by reusing the drug (Crowley *et al*, 1985). Self-wounding seems to lead to a comparable dysphoria, described as an increasing sense of tension and restlessness. Hypnosis and drug treatments may reduce this dysphoria or 'stimulus hunger' (Lycacki *et al*, 1979) which had previously been 'treated' by self-wounding. The postulated action of 5-HT active antidepressants on impulsivity (Coccaro *et al*, 1989) suggests that they may act in the same way.

Social treatment

Perhaps because of the abhorrence of suffering in modern Western culture, self-wounding – and the patients who harm themselves – provoke strong emotional reactions from caregivers. Many authors (e.g. Grunebaum & Klerman, 1967; Podvoll, 1969; Nelson & Grunebaum, 1971) have commented on the fear, anger or anxiety that a person deliberately harming themselves produces in carers and in fellow patients in in-patient units. Perhaps the best statement of this is by Winnicott (1949): he uncompromisingly terms the carers' reaction to the rejection of care as 'hate'. Almost as potentially destructive to patients who harm themselves is the impulse to save them from themselves or from their families. Staff who idealise the patient and blame others for their plight are as likely to ignore the patient's own wishes and intentions as staff who blame the patient, and the conflict that readily develops between the two factions may dominate staff concerns to the exclusion of the patient's actual needs, and may even spread to involve other patients or family members (Kwawer, 1980; and see Main, 1957, for the classic account).

Podvoll (1969) comments that the identity of self-harming patients seems to become little more than their acts, and it is easy for their own aspirations or intentions to become drowned out by those of their carers. Carers may relieve their disappointment and frustration with the patient by stigmatising her as 'bad', 'attention-seeking' or 'manipulative', terms which have no explanatory value but do subtly devalue the patient's distress and can sometimes be used to justify either harsh or indifferent treatment. It is also arguable that apparently therapeutic manoeuvres such as ECT, high-dose medication, or the transfer of care may on occasions be a means of getting rid of a frustrating patient or even punishing her for her refractoriness.

Not that the patient herself does not sometimes redirect her own rage and hatred from past, often abusive, carers to the staff who seek to help her. Silver comments about patients who wound themselves that "despite deliberately seeking help from one therapist to another, before long they seem driven to sabotage, devalue, frustrate and destroy the therapeutic experience they so desperately seek" (Silver, 1985).

Not uncommonly, staff may transfer their frustration with the patient to anyone with whom the patient has a particular relationship. Often this is a relatively junior doctor, who may feel criticised for "allowing the patient to get away with anything" or for failing to recognise a patient's "obviously manipulative" motives (Grunebaum & Klerman, 1967).

Kafka (1969) considers that countertransference difficulties and staff divisions can be minimised by increased communication between staff members, including those who are acting as therapists for the patient, increased communication with the patient, and the use of group meetings. Written agreements between staff and patient may also be helpful, although they may also be abused by staff who consider them in some quasi-legal sense as binding contracts on the patient rather than, as should be the intention, binding on the staff. Communication may be especially difficult with night staff or emergency staff who may not know either the patient or the policy of the treating team. Careful summaries and agreements in the notes and the nursing cardex may assist in communication, but personal contact is often necessary. A member of the treating team may need to hold themselves available for telephone consultation about such patients if incorrect treatment is to be avoided.

Ross & MacKay (1979) described the reorganisation of an institution for disturbed adolescent women. They noted that intensive psychotherapy worsened self-harm. Improvement most often occurred when the 'negative' qualities of the residents were reframed into 'positive' qualities. Resident females were 'co-opted' as co-therapists and encouraged to take responsibility for themselves and others.

Limit-setting. Walsh & Rosen (1988) make a useful distinction between coercing others ('manipulative') and punishing oneself through self-wounding. Although these motives may often coexist in the same person, it is useful to consider to what extent self-wounding is intended to bring pressure to bear on others, whether they are emotionally vulnerable

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family members or the duty psychiatrist. Walsh & Rosen (1988) suggest that a lack of concealment of the wound, wounds which have a tendency to escalate in severity, a history of previously successful coercion by means of self-wounding, and a preoccupation with power may be indications of 'manipulation'. Threats of self-harm are commonly used to assist the coercion of others.

Coercive (we prefer this term to manipulative) self-wounding is like an attack in which the blow falls not on the victim but on the attacker. It is best approached as an assault, or the threat of an assault, and dealt with by negotiation. The principles of this are similar to those of negotiating under other types of threat, whether they be from terrorists or from hostile countries. A clear statement of the principles is contained in a now classic paper by Murphy & Guze (1960).

Group psychotherapy. Repeated self-harm is not a contraindication to group psychotherapy, but the self-harming patient may become marginalised within the group, and respond to this by an increased, and not decreased, investment in the expression of feelings through self-harm. Patient and group therefore need to be especially carefully matched.

Walsh & Rosen (1988) consider the value of using groups entirely composed of patients who wound themselves. These groups present special difficulties. Self-harm by one member may trigger off self-harm in others. Members may also harm themselves in the group, for example by burning themselves with cigarettes. A counterculture may develop in which self-harm confers rather than diminishes status. Despite these problems, they consider that homogeneous groups present some advantages. Within the group a person may learn to identify and practise more adaptive means of meeting their needs than self-harm. He or she may learn new skills, particularly communication skills, and may find greater self-understanding through sharing common experiences and common fears. Presumably because their groups are closed, they find that they pursue a predictable course and delineate the steps that they consider lead to a successful outcome:

(a) accurate labelling of self-harm as the intent to wound and not to kill
(b) drawing the group's attention to the use of self-harm to produce intimacy
(c) (i) predicting the repetition of the cycle of closeness–conflict–self-harm–closeness
(ii) predicting the contagion of self-harm from one member to another (Rosen & Walsh, 1989)
(d) redefining a nurturant response to self-harm as participation in a destructive process
(e) identifying and practising better means of getting looked after
(f) generalising interpersonal skills from the group to the rest of social life
(g) dealing with the loss of the therapist and of the group at termination (Walsh & Rosen consider that this should occur through 'fading').

These steps may also be applicable to individual psychotherapy.

Family therapy. The reaction of other household members, especially when they are family, to self-wounding is likely to have a marked influence on whether or not it is repeated. It is valuable to include any involved household members in the treatment process, partly to shift any preoccupation that they may have with suicide and partly to help them to identify and use non-reinforcing responses to self-harm.

As previously noted, many of the families in which self-wounding occurs are disturbed. Often these families have a secret, which may be intimated to a carer under strict instructions not to inquire further or to reveal it to other family members. The secret may be given as an explanation for self-wounding. Concealment of unpleasant facts or emotions, for example anger (Carroll *et al*, 1980), may be characteristic of all the family's interactions and may contrast strangely with the over-confidence with which one or both parents may say that they know exactly how other family members feel, without them having to say. The secret may be that one or both parents have a psychiatric disorder such as depression or a drink problem, that one family member is violent, or sexually abusive, or is having affairs outside the family. One of our patients concealed for a number of years that her father cross-dressed in women's clothing.

By the time these issues surface, the family may have broken down. We doubt that reconstituting the family to examine them is worthwhile, but when the self-wounding is still taking place in a family context it may be necessary to confront the family about the existence of a secret. This may result in the break-up of the family. It is essential that the step is only taken with the full and informed agreement of the patient, that the patient has failed to free her/himself of the secret unaided, and that greater harm will come to family members by colluding with the secrecy than by confronting it.

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Outcome

Repetition of self-wounding

Hawton *et al* (1982) propose that repetition and successful suicide are both particularly likely when self-harm is part of a complex of impulsive behaviours. Myers (1988) found that scores on a scale developed by Buglass & Horton (1974), containing items relating to other forms of impulsive behaviour, could be used to predict the repetition of self-harm, but only in women and only with the low positive predictive value of 20–30%. Male repetition was best predicted by the answer to the question "What makes life worth living?".

Kreitman & Casey (1988) found that a forensic history, living alone, being battered, having a criminal conviction, being out of work, having a personality disorder, being a habitual user of drink or drugs, having had psychiatric treatment, and being separated from parents were all factors associated with repetition in a cohort of patients admitted to the Regional Poisoning Centre of the Edinburgh Royal Infirmary.

Van Egmond & Jonker (1988) found that 52% of a consecutive sample of patients admitted to hospital for treatment of a first episode of self-harm had been either sexually or physically abused, whereas 77% of those admitted for a repeat episode had been. Their sample was biased against patients well known to the hospital, who were then likely to be admitted, and patients who injured themselves, who were transferred to the surgical unit.

Suicide

Repeated self-wounding is often said to result in suicide only rarely. Simpson (1976) cited six references in support of his statement that "Although the wrist-cutter may be highly disturbed, such acts are usually of low lethality" and this distinction has been generally accepted. Walsh & Rosen (1988) cited 23 reports and a previous literature review all tending to this view, and expanded on Schneidman's distinction between suicide and parasuicide to produce 10 characteristics which differentiate them. Although they refer to three studies which found a minority of those who wounded themselves wished to die when doing so (Gardner & Gardner, 1975; Jones *et al*, 1979; Walsh, 1987), they conclude with Morgan (1979) that intent is too unreliably ascertained to be a useful measure of danger. Expressed intent may be a more reliable predictor, however (Pierce, 1977), and hopelessness certainly is (Beck *et al*, 1985).

However, although self-wounding may itself be "delicate self-cutting", as Pao (1969) described it, it may be associated in the same patient with more lethal self-harm, such as self-poisoning, hanging, or jumping from a height or in front of vehicles. Walsh (1987) studied 52 adolescents who had wounded themselves, and compared the 16 who had in the past jeopardised their lives through self-harm with the remaining 36 who had not. The number of times that they harmed themselves, the staff's judgement about intent, the reasons given for self-wounding, the physical damage produced by the self-wounding, and the use of multiple methods all failed to distinguish the two groups. The 'in jeopardy' group had, however, experienced significantly more adverse events, especially sexual abuse as a child, but also including a recent, emotionally important loss or chronic peer conflict.

Follow-up studies

Nelson & Grunebaum (1971) followed up 23 wrist slashers, and succeeded in obtaining information on 19, five to six years after their initial contact. Their outcome was poor. Reilly (1983), in a study of patients with personality disorder admitted to a professorial unit over a two-year period, found 17 patients who had wounded themselves, of whom all but two had also poisoned themselves. He was able to obtain five-year follow-up information for 16. The outcome of these two studies is similar (Table 2): about 15% of patients killed themselves and about half improved after five years.

Table 2
Five-year outcome of self-wounding

	Nelson & Grunebaum, 1971[1] ($n = 19$)	Reilly, 1983 ($n = 16$)
Suicide	3 (16%)	2 (13%)
Psychosis	2 (10.5%)	3 (18.8%)
'Improved'	10 (52.6%)	8 (50%)

1. Of six survivors described as psychotic at initial presentation, four improved: all three suicides came from the psychotic group.

Discussion

Self-injury is not foreign to our experience. Not only is it surprisingly common in the general population, with about 1 in 600 people wounding themselves deliberately, but it occupies an important place in our culture. We distinguish self-wounding from self-mutilation which has some aim in view. The latter includes psychotically driven bodily rearrangement, and failed suicide. We also distinguish self-wounding from non-consummatory self-injury, which is associated with learning disability and with social deprivation, and is shown by lower animals.

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We agree with Favazza (1989) that self-wounding is intentional, and designed to relieve feelings which cannot be expressed in any other way. Often this is because the direct expression of feeling is either ignored or punished, or both. This situation often arises when families are concealing a secret, for example that of sexual abuse. Abused women may believe that their body is not their own, but the property of the abuser.

We also agree with Favazza that repetition becomes addictive. There may be two main reasons for this, which may often be combined: (a) coercive – self-wounding produces a desirable social response; and (b) relieving – self-wounding produces a desirable alteration of mood, perhaps by direct biochemical mechanisms, perhaps by conditioning, or perhaps symbolically. Addictive self-wounding may also lead to hospital addiction.

The response of carers may increase coercive self-harm by denying other means of self-assertion, depriving a person of self-determination, failing to set clear limits, and encouraging hospital addiction. Relief self-harm may be increased by hostility or criticism, by failing to provide for emotional needs, and by a lack of stability in close relationships, including therapeutic relationships.

Although self-wounding is rarely fatal, repeated self-wounding is associated with other self-harm which may be. Rarely this may be attributed to the supervention of a psychosis or a depressive illness, and careful screening for these is necessary. Social, especially family, circumstances also need careful investigation. Drug treatment may be valuable if a definite psychiatric illness is present, or as a temporary expedient during 'detoxification'. Hypnosis is also regarded as helpful for this. The mainstay of treatment is psychosocial. The first principle is to avoid further harm which is all too readily produced by the emotional reactions of carers, or by the encouragement of hospital addiction.

Self-wounding as a reaction to a highly stressful current situation may be fairly easy to manage. Once it becomes addictive and persists even when the situation has changed, treatment becomes much more difficult. The person who is addicted to self-wounding is likely to relate to others as if they are the neglectful, abusive parents or peers to whom they have been exposed in the past. It may be very difficult to maintain a compassionate and non-critical therapeutic relationship despite the provocations and frustrations. We think it helpful for the therapist to understand this type of self-wounding in the context of persistently disordered relationships, but do not consider that terming these a 'personality disorder' is particularly illuminating. Indeed it has a number of disadvantages.

The relationship difficulties crystallise in two practical problems: when to provide emergency succour, and when to take control. The former is often a special difficulty for a caregiver in the community, the latter for the hospital-based worker. When a client rings to say they want to take an overdose and implies that they certainly will unless you visit them, what do you do? When the in-patient or the patient in casualty insists on going home, darkly hinting that the remedy for all her troubles is there, in the shape of a full bottle of paracetamol, what do you do?

We cannot offer definitive guidance. We suggest that there are times when an emergency home visit, an extra consultation, or detaining a patient are indicated. If the decision is right, and there is an extraordinary need, the patient will recognise that it has been met and will feel empowered. If the decision is wrong, the patient will either feel rejected because their real need has been unrecognised or cheated because the caregiver has been unable to trust them to sort out the situation for themselves.

Clearly the decision is a difficult one, in which the patient may be asking for one thing and needing another. We therefore think that the decision should be made by an experienced staff member who knows the patient. Junior psychiatrists on call, community workers unfamiliar with the patient, and general practitioners should have telephone access to such a person out of hours. When the patient is completely unknown, we think that it is best to err on the side of safety until such time as a sufficient assessment has been made for an informed decision.

The principles which, we think, might usefully govern treatment are summarised below.

(a) Making and maintaining a relationship
  (i) understanding
  (ii) staying calm
  (iii) reframing self-wounding as an expression of feeling
  (iv) avoiding threats or promises
  (v) sticking to limits
  (vi) leaving the responsibility with the patient
  (vii) sticking with the patient.
(b) Breaking the habit
  (i) coping with withdrawal symptoms
  (ii) increasing determination to change.
(c) Maintaining change
  (i) rewards for new behaviour
  (ii) minimising medicalisation
  (iii) resolving emotional conflicts
  (iv) tackling coercion
  (v) training in intimacy.

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References

AMERICAN PSYCHIATRIC ASSOCIATION (1987) *Diagnostic and Statistical Manual of Mental Disorder* (3rd edn, revised) (DSM-III-R). Washington, DC: APA.

AZRIN, N., GOTTLIEB, L., HUGHART, L., *et al* (1975) Eliminating self-injurious behavior by educative procedures. *Behavior Research and Therapy*, **13**, 101–111.

BACH-Y-RITA, G. (1974) Habitual violence and self-mutilation. *American Journal of Psychiatry*, **131**, 1018–1020.

BECK, A., STEAR, R., KARASS, M., *et al* (1985) Hopelessness and eventual suicide: a 10-year prospective study of patients hospitalised with suicidal ideation. *British Journal of Psychiatry*, **142**, 559–562.

BRIERE, J. & ZAIDI, L. Y. (1989) Sexual abuse histories and sequelae in female psychiatric emergency room patients. *American Journal of Psychiatry*, **146**, 1602–1606.

BUGLASS, D. & HORTON, J. (1974) A scale for predicting subsequent suicidal behaviour. *British Journal of Psychiatry*, **124**, 573–578.

BURNHAM, R. C. (1969) Symposium on impulsive self-mutilation. *British Journal of Medical Psychology*, **42**, 223–227.

CARR, E. G. (1977) The motivation of self-injurious behaviour. *Psychological Bulletin*, **84**, 800–816.

CARROLL, J., SCHAFFER, C., SPERSLEY, J., *et al* (1980) Family experiences of self-mutilating patients. *American Journal of Psychiatry*, **137**, 852–853.

CLENDENIN, W. W. & MURPHY, G. E. (1971) 'Wrist cutting'. *Archives of General Psychiatry*, **25**, 465–469.

COCCARO, E. F., SIEVER, L. J., KLAR, H. M., *et al* (1989) Serotonergic studies in patients with affective and personality disorders. Correlates with suicidal and impulsive aggressive behaviour. *Archives of General Psychiatry*, **46**, 587–599.

CORTER, H., WOLFSON, A. & LOCKE, B. (1971) A comparison of procedures for eliminating self-injurious behaviour of retarded adolescents. *Journal of Applied Behaviour Analysis*, **4**, 201–213.

COWDRY, R. & GARDNER, D. (1988) Pharmacotherapy of borderline personality disorder. *Archives of General Psychiatry*, **45**, 111–119.

CRABTREE, L. M. (1967) A psychotherapeutic encounter with a self-mutilating patient. *Psychiatry*, **30**, 91–100.

CROWLEY, T. J., WAGNER, J. E., ZERBE, G., *et al* (1985) Naltrexone-induced dysphoria in former opioid addicts. *American Journal of Psychiatry*, **142**, 1081–1084.

DAWSON, D. (1988) Treatment of the borderline patient, relationship management. *Canadian Journal of Psychiatry*, **33**, 370–374.

EMERSON, L. E. (1914) A preliminary report of psychoanalytic study and treatment of a case of self-mutilation. *Psychoanalytic Review*, **1**, 42–52.

EVANS-WENTZ, R. (1968) *The Tibetan Book of the Great Liberation*. Oxford: Oxford University Press.

FAVAZZA, A. (1987) *Bodies Under Siege*. Baltimore: Johns Hopkins University Press.

—— (1989) Why patients mutilate themselves. *Hospital and Community Psychiatry*, **40**, 137–145.

—— & CONTERIO, K. (1989) Female habitual self-mutilators. *Acta Psychiatrica Scandinavica*, **79**, 283–289.

FELDMAN, M. D. (1988) The challenge of self mutilation, a review. *Comprehensive Psychiatry*, **29**, 252–269.

FOX, K. & WEISSMAN, M. (1975) Suicide attempts and drugs: contradiction between method and intent. *Social Psychiatry*, **10**, 31–38.

GARDNER, A. R. & GARDNER, A. J. (1975) Self-mutilation, obsessionality and narcissism. *British Journal of Psychiatry*, **127**, 127–132.

—— & COWDRY, R. (1986) Positive effects of carbamazepine on behavioral dyscontrol in borderline personality disorder. *American Journal of Psychiatry*, **143**, 519–522.

GOSSOP, M., COBB, J. & CONNELL, P. (1975) Self-destructive behaviour in oral and intravenous drug-dependent groups. *British Journal of Psychiatry*, **126**, 266–269.

GRAFF, H. & MALLIN, R. (1967) The syndrome of the wrist cutter. *American Journal of Psychiatry*, **124**, 36–42.

GREENSPAN, G. S. & SAMUEL, S. E. (1989) Self cutting after rape. *American Journal of Psychiatry*, **146**, 789–790.

GRUNEBAUM, N. M. & KLERMAN, G. L. (1967) Wrist-slashing. *American Journal of Psychiatry*, **124**, 527–534.

GUPTA, M. A., GUPTA, A. K. & HABERMAN, H. F. (1986) Neurotic excoriations: a review and some new perspectives. *Comprehensive Psychiatry*, **27**, 381–386.

HAWTON, K., OSBORN, M., O'GRADY, J., *et al* (1982) Classification of adolescents who take overdoses. *British Journal of Psychiatry*, **140**, 124–131.

HERMAN, J. L. (1989) Childhood trauma in borderline personality disorder. *American Journal of Psychiatry*, **146**, 490–495.

JOHNSON, F., FRANKEL, B., FERRENCE, R., *et al* (1975) Self-injury in London, Canada: a prospective study. *Canadian Journal of Public Health*, **66**, 307–316.

JONES, I., CONGIU, L., STEVENSON, J., *et al* (1979) A biological approach to two forms of self-injury. *Journal of Nervous and Mental Disease*, **167**, 74–78.

JONES, F. H., SIMMONS, J. Q. & FRANKEL, F. (1974) An extinction procedure for eliminating self destructive behaviours in a 9-year-old autistic girl. *Journal of Autism and Childhood Schizophrenia*, **4**, 241–250.

KAFKA, J. (1969) The body as a transitional object: a psychoanalytic study of a self-mutilating patient. *British Journal of Medical Psychology*, **42**, 207–212.

KAHAN, J. & PATTISON, E. (1984) Proposal for a distinctive diagnosis: the deliberate self-harm syndrome. *Suicide and Life Threatening Behaviour*, **14**, 17–35.

KENDALL, P. C. & BRASWELL, L. (1984) *Cognitive-Behavioural Therapy for Impulsive Children*. New York: Academic Press.

KERNBERG, O. (1987) A psychodynamic approach. *Journal of Personality Disorders*, **1**, 344–346.

KONICKI, P. E. & SCHULZ, S. C. (1989) Rationale for clinical trials of opiate antagonists in treating patients with personality disorders and self-injurious behaviour. *Psychopharmacology Bulletin*, **25**, 556–563.

KRAUPL TAYLOR, F. (1969) Prokaletic measures derived from psychoanalytic techniques. *British Journal of Psychiatry*, **115**, 407–419.

KREITMAN, N. (1990) Research issues in the epidemiological and public health aspects of parasuicide and suicide. In *The Public Health Impact of Mental Disorder* (eds D. Goldberg & D. Tantam), pp. 73–82. Stuttgart: Hogrefe and Huber.

—— & CASEY, P. (1988) Repetition of parasuicide: an epidemiological and clinical study. *British Journal of Psychiatry*, **153**, 792–800.

KWAWER, J. (1980) Some interpersonal aspects of self-mutilation in a borderline patient. *Journal of the American Academy of Psychoanalysis*, **8**, 203–216.

LACEY, J. H. & EVANS, C. D. H. (1986) The impulsivist: a multi-impulsive personality disorder. *British Journal of Addiction*, **81**, 641–649.

LANSKY, M. (1988) The subacute hospital treatment of the borderline patient - I: an educational component. *Hillside Journal of Clinical Psychiatry*, **10**, 24–37.

LEMERT, E. (1967) *Human Deviance, Social Problems and Social Control*. Englewood Cliffs, New Jersey: Prentice-Hall.

LESTER, D. & BECK, A. (1980) What the suicide's choice of method signifies. *Omega*, **81**, 271–277.

LEWIS, G. & APPLEBY, L. (1988) Personality disorder: the patients psychiatrists dislike. *British Journal of Psychiatry*, **153**, 44–49.

LINEHAN, M., CAMPER, P., CHILES, J., *et al* (1987) Interpersonal problem solving and parasuicide. *Cognitive Therapy and Research*, **11**, 1–12.

LION, J. R. & CONN, L. M. (1982) Self mutilation: pathology and treatment. *Psychiatric Annals*, **12**, 782–787.

LOVAAS, O. I. & SIMMONS, J. Q. (1969) Manipulation of self destruction in three retarded children. *Journal of Applied Behaviour Analysis*, **2**, 143–157.

https://doi.org/10.1192/bjp.161.4.451 Published online by Cambridge University Press

LYCACKI, H., JOSEF, N. & MUNETZ, M. (1979) Stimulation and arousal in self-mutilators. *American Journal of Psychiatry*, **136**, 1223–1224.

MAIN, T. F. (1957) The ailment. *British Journal of Medical Psychology*, **30**, 129–145.

MALAN, D. & BERARDI, D. (1987) Hypnosis with self-cutters. *American Journal of Psychotherapy*, **41**, 531–541.

MARKOVITZ, P., CALABRESE, J., SCHULZ, S., *et al* (1991) Fluoxetine in the treatment of borderline and schizotypal personality disorders. *American Journal of Psychiatry*, **148**, 1064–1067.

MASSON, J. M. (1985) *The Assault on Truth: Freud's Suppression of the Seduction Theory*. Harmondsworth: Penguin.

MENNINGER, K. A. (1935) A psychoanalytic study of the significance of self mutilations. *Psychoanalytic Quarterly*, **4**, 408–466.

MORGAN, H. G. (1979) *Death Wishes*. Chichester: John Wiley.

MONTGOMERY, S. & MONTGOMERY, D. (1982) Pharmacological prevention of suicidal behaviour. *Journal of Affective Disorders*, **4**, 291–298.

MURPHY, G. & GUZE, S. (1960) Setting limits: the management of the manipulative patient. *American Journal of Psychotherapy*, **14**, 30–47.

MYERS, E. (1988) Predicting repetition of deliberate self-harm: a review of the literature in the light of a current study. *Acta Psychiatrica Scandinavica*, **77**, 314–319.

NELSON, S. & GRUNEBAUM, H. (1971) A follow-up study of wrist slashers. *American Journal of Psychiatry*, **127**, 1345–1349.

NOVOTNY, P. (1972) Self-cutting. *Bulletin of the Menninger Clinic*, **36**, 505–514.

PAO, P. (1969) The syndrome of delicate self-cutting. *British Journal of Medical Psychology*, **42**, 195–206.

PATTINSON, E. M. & KAHAN, J. (1983) The deliberate self-harm syndrome. *American Journal of Psychiatry*, **140**, 867–872.

PIERCE, D. (1977) Suicidal intent in self-injury. *British Journal of Psychiatry*, **130**, 377–385.

PODVOLL, E. M. (1969) Self-mutilation within a hospital setting: a study of identity and social compliance. *British Journal of Medical Psychology*, **42**, 213–221.

REILLY, S. P. (1983) *A Study of Self-Mutilation and Prognosis in Personality Disorder*. MSc Thesis, University of Manchester.

ROBINSON, A. & DUFFY, J. (1989) A comparison of self-injury and self-poisoning from the Regional Poisoning Treatment Centre, Edinburgh. *Acta Psychiatrica Scandinavica*, **80**, 272–279.

ROSEN, F. M. & WALSH, B. W. (1989) Patterns of contagion in self mutilation epidemics. *American Journal of Psychiatry*, **146**, 656–658.

ROSS, R. R. & MACKAY, H. B. (1979) *Self Mutilation*. Lexington: Lexington Books.

RYLE, A., POYNTON, A. & BROCKMAN, B. (1989) *Cognitive Analytic Therapy*. Chichester: John Wiley.

SALKOVKIS, P., ATHA, C. & STORER, D. (1990) Cognitive-behavioural problem solving in the treatment of patients who repeatedly attempt suicide. A controlled trial. *British Journal of Psychiatry*, **157**, 871–876.

SHAPIRO, S. (1987) Self-mutilation and self-blame in incest victims. *American Journal of Psychotherapy*, **41**, 46–54.

SILVER, D. (1985) Psychodynamics and psychotherapeutic management of self-destructive character-disordered patient. *Psychiatric Clinics of North America*, **8**, 357–375.

SIMPSON, M. A. (1976) Self-mutilation. *British Journal of Hospital Medicine*, **16**, 430–438.

SNEDDON I. & SNEDDON J. (1975) Self-inflicted injury. A follow-up of 40 patients. *British Medical Journal*, *iii*, 527–530.

—— (1988) Personality disorders. In *Recent Advances in Clinical Psychiatry* (ed. K. Granville-Grossman). Edinburgh: Churchill Livingstone.

—— & WHITTAKER, J. (1992) Self-wounding and personality disorder. In *Personality Disorders* (eds P. Tyrer & G. Stein). London: Gaskell Press.

VAERNET, K. & MADSEN, A. (1970) Stereotaxic amygdalotomy and basofrontal tractotomy in psychotics with aggressive behaviour. *Journal of Neurology, Neurosurgery and Psychiatry*, **33**, 856–863.

VAN EGMOND, M. & JONKER, D. (1988) Sexual abuse and physical assault: risk factors for recurrent suicidal behaviour in women. *Tijdschraft die Psychiatrie*, **30**, 21–38.

WALDENBERG, S. S. A. (1972) *Wrist-Cutting: a Psychiatric Enquiry*. M. Phil Dissertation, University of London.

WALSH, B. W. (1987) *Adolescent Self-Mutilation: an Empirical Study*. Unpublished doctorial dissertation. Boston College Graduate School of Social Work.

—— & ROSEN, P. M. (1988) *Self-Mutilation: Theory, Research, and Treatment*. New York: Guilford Press.

WEISSMAN, M. M. (1975) Wrist-cutting. *Archives of General Psychiatry*, **32**, 1166–1171.

WINNICOTT, D. (1949) Hate in the counter-transference. *International Journal of Psychoanalysis*, **30**, 69–74.

WOLF, M. M., RISLEY, T., JOHNSTON, M., *et al* (1967) Application of operant conditioning procedures to the behaviour problems of an autistic child: a follow-up and extension. *Behaviour Research and Therapy*, **5**, 103–111.

ZANARINI, M. C., GUNDERSON, J. G., MARINO, M. F., *et al* (1989) Childhood experiences of borderline patients. *Comprehensive Psychiatry*, **30**, 18–25.

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