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What Happens to Patients Who Frequently Harm Themselves?
A Retrospective One-Year Outcome Study

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Between 1982 and 1987, 42 patients were selected who had been admitted three times in one week to the Regional Poisoning Treatment Centre in Edinburgh for the treatment of deliberate self-harm. Most (87%) of these admissions related to drug overdose. Most of the patients were young, unemployed, lacking a partner and from the low social classes. Three-quarters of the sample had at least one known conviction and more than a third were known to have served a prison sentence. There was only one patient in whom mental illness was thought to be relevant to the episode of self-harm, although five patients were mildly mentally handicapped. Case notes were reviewed to assess the outcome one year after the index admission. None of the patients had committed suicide, although 36 repeated self-harm during the follow-up year.

Kreitman & Casey (1988) suggested that the clinical characteristics and life circumstances of patients who frequently harm themselves require closer study. Such patients are a burden to hospital services, particularly when the episodes of self-harm are closely spaced (Ennis *et al*, 1985). It has been suggested that such patients are particularly likely to kill themselves (Hawton & Catalan, 1981; Farmer, 1986), although there have been no outcome studies to substantiate this clinical impression.

The aims of this retrospective study were to describe the demographic and clinical features of those patients who frequently harm themselves and to examine the outcome over the next year. We defined frequent self-harm as three episodes in one week because it was our impression that patients who repeat self-harm within a short space of time are particularly difficult to manage.

Method

The sample was identified using the records of admissions to the Regional Poisoning Treatment Centre (RPTC) at the Royal Infirmary of Edinburgh. These records have been computerised since 1982. It is the policy of the RPTC to offer overnight admission to all patients who present with deliberate self-harm so that they can be assessed by a psychiatrist the next morning.

Between 1982 and 1987, the average number of individuals admitted each year to the RPTC was 1154. In this same period, 44 patients were admitted three or more times in one week to the RPTC. Nine patients met this sample criterion twice and three patients did so three times. Two patients could not be included in the sample because they discharged themselves prematurely and were never assessed by a psychiatrist, and so the sample was reduced to 42 patients.

A small proportion of patients admitted to the hospital because of self-harm will require admission to medical or surgical wards for treatment. When medically fit, such patients are usually later referred to the Department of Psychological Medicine within the Infirmary. In order to find out how many patients might have been missed by our sampling frame, we carried out a manual search of the records in the Department of Psychological Medicine. In 1986–87, 53 patients were referred to the department from medical or surgical wards after deliberate self-harm. Case notes were reviewed and it was found that none of these patients would have met the criterion for admission to the study.

Forty patients who met the criterion for admission to the study had extensive contact with medical and psychiatric services, and consequently the case notes provided much background information. In 19 cases the patient had been the subject of a psychiatric report obtained by a court of law, and this included a police record of previous convictions. During the one-year follow-up, most patients continued to have frequent contact with health services and again the case notes provided much information about their progress. Seven patients left Edinburgh at some time after the index episodes of self-harm. In most of these cases, information about their progress was obtained when they made further contact with Edinburgh hospital services, but three patients did not return to the Edinburgh area. These three patients were traced and their continued survival established with the help of the computerised records of the National Health Service Central Register for Scotland and England.

Results

The sample comprised 23 men (mean age 31.5, range 16–62 years), and 19 women (mean age 29.5, range 16–62 years). Almost half the sample were under 25 years old at the index episodes. Only two patients were employed at the time. Social class (Office of Population Censuses and Surveys,

Table 1
Primary and secondary case-note diagnoses ($n = 42$)

Diagnosis	No. of patients with this primary diagnosis	No. of patients with this secondary diagnosis
Personality disorder[1]	14	9
Serious alcohol-related harm[2]	7	7
Neurotic disorder	6	2
Mild mental handicap[3]	5	0
Schizophrenia	5	0
Depressive illness	2	0
Drug abuse	0	15
Sexual deviation	0	5
Eating disorder	0	3
Munchausen syndrome	0	1
No psychiatric diagnosis	3	–

1. Usually psychopathy.
2. For example, delirium tremens or alcoholic liver damage. Excessive drinking was not sufficient alone.
3. All lived independently.

Table 2
Previous admissions to the RPTC for deliberate self-harm

No. of admissions[1]	No. of patients
0	5
1-5	16
6-10	6
11-15	4
15+	11

1. Mean (range) = 14.0 (0-100).

Table 3
Outcome one year after index episodes of self-harm ($n = 42$)[1]

Event	No. of patients
RPTC readmission within 3 months	34[2]
Known self-harm repeated within 3 months	37
RPTC readmission within 12 months	36[3]
Psychiatric in-patient[4]	17
Psychiatric out-patient	29
Convictions[5]	15
Prison sentence	10
Employment	1
Significant physical harm[6]	2
Death[7]	0

1. Seven patients spent at least part of the year out of Edinburgh. All available data are included.
2. The mean number of readmissions in this group was 3.8.
3. The mean number of readmissions in this group was 5.9.
4. Primary problem was self-harm in nine cases.
5. Usually breach of the peace, shoplifting or vandalism, but four cases of assault.
6. Bilateral fractured calcanei ($n = 1$) and fractured lumbar vertebrae ($n = 1$) after jumping from a height.
7. Continued survival was established for all patients.

1980) was estimated from their employment of longest standing, or, if they had never been employed, from the parent who had raised them. Seventeen patients belonged to social class V, 13 to social class IV, six to social class III and two to social class II. It was not possible to classify four patients as they had never worked and the occupations of their parents were not known. Only three patients were living with a sexual partner of the opposite sex.

Primary and secondary case-note diagnoses are shown in Table 1. Personality disorder was the most common primary diagnosis and drug abuse was the most common secondary diagnosis.

Seventeen patients either had had more than three months of institutional care, or had been permanently separated from at least one parent before the age of 14 years. Thirty-three patients had at least one known conviction recorded; the average number of known convictions for these patients was 6.8 (range 1-35). Eighteen patients were known to have served at least one prison sentence. Most of the convictions were for breach of the peace, but seven patients had been convicted of serious assault.

Table 2 shows the number of previous admissions to the RPTC before the index episodes. The five patients who had never been admitted before did not differ from the rest of the sample in their demographic or clinical characteristics, although this subsample is very small.

In 32 patients each index episode of self-harm was of a drug overdose. Eight patients cut their wrists on at least one occasion, usually taking a drug overdose at the same time. In two patients, the index episode of self-harm consisted of self-poisoning (metal polish and paint stripper).

None of the patients was ever known to have written a suicide note. Thirty-two patients consumed alcohol before at least one of the three episodes of self-harm. Thirty-eight patients referred themselves to an accident and emergency department after at least one of the episodes of self-harm. The medical seriousness of the episodes was slight. Only after one episode was resuscitation with naloxone required. The only other treatments ever administered were gastric lavage or induced emesis.

For 25 patients the episodes of self-harm were unexplained. Six patients were believed to be trying to gain admission to a psychiatric hospital. (In the total sample, six patients were of no fixed abode, four were living in a hostel and one patient was lodging in emergency accommodation.) Ten patients had experienced an adverse life event before the index episodes (six in the preceding month, three in the preceding 48 hours, and one in the preceding 12 hours). There was only one patient in whom mental illness (recent-onset alcoholic brain damage) was thought to be relevant to the self-harm.

One-year outcome

Table 3 shows the one-year outcome for the sample and includes all available data. Certain events, for example, total number of episodes of self-harm and convictions, must be underestimates, but the data on readmission and in-patient and out-patient attendance were based on the computerised records of all attendances at the psychiatric services in the Edinburgh area.

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Of the nine patients admitted to a psychiatric hospital with a primary problem of self-harm, eight patients continued to harm themselves while in hospital and the ninth patient did so on discharge. Three of these nine patients were known to have attacked a member of staff during admission.

Discussion

Kreitman & Casey (1988) suggested that four or more repetitions of self-harm were associated with male gender, low social class, being unmarried, sociopathy, and alcoholism. The present findings support this suggestion for all associations except that of the male gender. Approximately three-quarters of the present sample were from social class IV or V, had one or more convictions (43% had served a prison sentence) and abused alcohol and/or drugs. The vast majority of the sample were unemployed and living without a partner. Other features of the sample were relative youth (average age 31 years) and the relative absence of active mental illness, although one patient suffered alcoholic brain damage and five mild mental handicap. Bancroft & Marsack (1977) suggested that frequent self-harm may be the result of temporary stress, but most patients were not known to have experienced an adverse life event in the month before the index episodes of self-harm. The prediction that frequent self-harm is associated with a high risk of suicide was not supported in this one-year follow-up, but, of course, some patients may yet kill themselves.

The design of the study was retrospective and the data were limited in the main to those available in the case records. Motivational and psychological explanations of self-harm may be important (Kreitman & Casey, 1988). The lack of such data may partly explain the failure to understand the onset of self-harm and the failure to distinguish those patients who had never before been admitted for self-harm from those patients with a past history of self-harm.

More than half the sample had a primary or secondary diagnosis of personality disorder. The case-note diagnosis of personality disorder must be open to question in a retrospective study. The diagnosis may be inferred from the history of frequent self-harm alone (Casey, 1989), and reflect no more than the prejudices of the staff. Lists of criminal convictions in the case notes and legal reports must be underestimates, but were likely to be a more reliable record of antisocial behaviour. Antisocial behaviour was common in both the men and women in the sample, which was tentative support for the association of sociopathy and frequent self-harm. Henderson (1942) believed that self-harm was the most specific way in which the 'psychopathic state' showed itself as a sudden impulsive act. Batchelor (1954) suggested that aggressive individuals inevitably come into conflict with other people, which leads to mounting frustration and inner tension. Self-harm is one method of coping with this tension. Self-harm may also be an attempt to manipulate other people (Garvey & Spoden, 1980). These generalisations may help explain some, but by no means all, the episodes of self-harm. In more than half the episodes, the reasons for the act were fathomless to the staff treating the patient.

The study was not intended to investigate the benefits of psychiatric intervention, but there was no evidence that admission to a psychiatric hospital prevented the repetition of self-harm. Of course, admission may relieve hard-pressed or exasperated staff in a ward or casualty department. Intervention, however problematic, may be justified if such patients are particularly likely to kill themselves. None of the sample killed themselves during the next year, although two patients who jumped from a height suffered orthopaedic injuries. Possible explanations for the absence of suicide are that most patients who kill themselves are over 45 years old (Barraclough *et al*, 1974), but most of the sample were young; none of the sample was acutely mentally ill at the time of self-harm and this is associated with suicide (Hawton & Fagg, 1988). The simplest explanation may be that suicide is not as common an outcome as feared in the year following frequent self-harm.

Prospective studies using more sophisticated psychological and motivational measures are appropriate to investigate the interaction between age, personality deviations and adverse life circumstances in determining the risk of further repetition or suicide. The management of frequent self-harm was not addressed in the present study and merits further research.

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