

Deliberate Self-injury (Attempted Suicide) in Patients Admitted to Hospital in Mid-Sussex

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The incidence of deliberate self-injury without fatal outcome ('attempted suicide'), and with consequent referral to casualty departments and wards of general hospitals, is a constant and growing concern for the medical and social professions. The situation may be described as a steady, never-ending epidemic, with no ready remedy capable of halting it. Indeed, for many hospitals all over the country the epidemic seems likely to overwhelm existing facilities for the treatment of psychiatric, and even non-psychiatric conditions.

Research undertaken to grasp this problem over more recent years include the investigations of Stengel and Cook (1958) in London, Kessel (1965) in Edinburgh and Evans (1967) in Oxford.

A significant pamphlet issued by the World Health Organization (1968) summarizes information on an international level as follows:

'Attempted suicide' or 'deliberate self-injury' is a condition in which reliable national statistics are difficult to obtain. The WHO pamphlet continues—'Systematic surveys carried out in some centres in England, Switzerland and U.S.A. showed that the ratio of attempted suicides to committed suicide was 8 : 1 to 10 : 1. Where coordinated suicide prevention services exist it may be feasible for them to keep a confidential register of persons attempting suicide.'

Such a confidential register of persons attempting deliberate self-injury is no doubt a highly desirable objective, but throughout the British Isles it is far from being realized. By and large 'deliberate self-injury' gathers momentum, and it demands an increase in care, time, money and facilities for its diagnosis and management and prevention.

Brighton County Borough contains a population of 166,081 (1971 census), including a high

proportion of elderly persons (20 per cent over 65 years). The Borough of Hove has 70,760 inhabitants of whom 25 per cent are aged 65 and over. Both Boroughs contain few industries, and there are many hotels, lodging houses and rooms for letting. Rural Mid-Sussex consists of a number of smaller towns and villages, with a population of 132,669 persons; light industries are developing in this area, and commuters to London also contribute to the growing population.

In order to ascertain the extent of the problem in Mid-Sussex, including the Boroughs of Brighton and Hove, we investigated cases of attempted suicide of all kinds for the single years 1963 and 1967, who were admitted to four general hospitals in the area. We chose these two years, to ascertain whether or not the incidence was rising over a four-year interval. Not every case is referred to a general hospital, and general practitioners see many, treating them either in the patients' homes or in consulting rooms. We did endeavour to establish contact with general practitioners on cases seen by them, by means of a questionnaire, but we soon discovered that records were usually inadequate for conclusions to be drawn. Our investigation was therefore confined to hospital referrals.

MATERIALS AND METHODS

For the purpose of this investigation, deliberate self-injury was defined as the deliberate self-infliction of injury or poisoning with the intention of causing death or risking death, or degrees of harm, or in order to give an impression of such intention.

Cases such as those so defined in the years 1963 and 1967 were admitted to four hospitals in the area: The Royal Sussex County Hospital

in Brighton; Hove General Hospital; The Cuckfield Hospital at Cuckfield, Mid-Sussex; and lastly the Psychiatric Emergency Unit of the Brighton General Hospital in Brighton. In the case of the first three hospitals, patients were admitted initially via their own casualty departments; from these, cases were referred, if thought necessary, to general medical wards to be seen by consultant psychiatrists visiting the hospitals. If further investigation, supervision or immediate psychiatric treatment was considered advisable by the consultant psychiatrist, patients were transferred to the Psychiatric Emergency Unit of the Brighton General Hospital. Some cases were admitted directly to the Psychiatric Emergency Unit if their state was deemed to be very acute, or if no beds were available at the other hospitals.

In order to gather more detailed information about deliberate self-injury, we focused attention on all cases admitted to the Psychiatric Emergency Unit. These cases were kept under observation for up to 7 days, and we were able to investigate them in some detail. In all these cases are excluded accidental self-injury or accidental poisoning; on the other hand, no matter how slight the injury or how mild the poisoning, if there was a deliberate intent to harm the person they were included.

Referrals to casualty departments of general hospitals tended to show some increase in 1967 as compared with 1963. In 1963 more cases were transferred directly to the Psychiatric Emergency Unit after being seen in casualty

departments, but by 1967 the transfers to the Psychiatric Emergency Unit more often took place after the patients had been examined by Consultant Psychiatrists.

After deducting patients who come from outside the catchment area we calculated the rate of referrals from within the Mid-Sussex catchment area as being of the order of 112 per 100,000 for either year. This rate is 9 times the number of known successful suicides in the area.

In 1963, 63 males and 89 females, a total of 152 patients, were referred to the Psychiatric Emergency Unit; in 1967, 48 men and 54 women, a total of 102 patients, were referred to the Unit. Out of a total of 862 patients for these two years 254 or 30 per cent, were referred for assessment to the Psychiatric Unit, of whom 111 were men (43.5 per cent) and 143 were women (56.5 per cent).

In the years 1963 and 1967, although there was some rise in the number of initial hospital referrals of both sexes, the relative percentages of each sex remained relatively constant, as can be seen in Table I. Women were twice as numerous as men.

Psychiatric emergencies admitted to Brighton General's Psychiatric Emergency Unit were analysed by Snaith and Jacobson (1965). Deliberate self-injuries accounted for 17 per cent of all admissions to this unit in the year 1963.

The remainder of this investigation concerns the 254 cases investigated in the Psychiatric Emergency Unit at Brighton General Hospital.

TABLE I
Initial referrals to hospitals in the catchment area

Hospital	1963			1967		
	Men	Women	Total	Men	Women	Total
Royal Sussex County	90	170	260	117	183	300
Hove General	31	63	94	27	63	90
Cuckfield Rural	7	18	25	10	27	37
Brighton General Psychiatric Emergency unit	16	28	44	4	8	12
	144	279	423	158	281	439
Per cent	34.5	65.5	100	33.6	66.4	100

TABLE II
Admissions to hospital wards

Hospital	1963	1967
Royal Sussex County ..	146	214
Hove	55	62
Cuckfield	25	37
St. Francis	1	1
	227	314
Transferred to Brighton General Hospital Psychiatric Unit directly from Casualty ..	77	33
Transferred to Brighton General Psychiatric Emergency Unit after being seen by Consultant in Medical Ward	31	57

RESIDENCE

TABLE III
Residence of cases of deliberate self-injury

Place	Number	Percentage of total number
Brighton	140	55
Hove	50	23
Mid-Sussex 'Rural' ..	20	8
Outside catchment area	28	11
No fixed above	8	3
	254	100

The Borough of Brighton, containing the greatest concentration of population in the area, is responsible for the greatest percentage of referrals. But it is noteworthy that temporary visitors resorting to deliberate self-injury accounted for an appreciable number of cases referred. One reason for their referral to the Emergency Unit was that their problems required intensive sorting out, including their actual place of residence.

A distinctive feature of this investigation is the lower percentage of referrals to hospital from the Mid-Sussex semi-rural areas compared with those from the Boroughs of Brighton and Hove.

It was possible to apply the Registrar

TABLE IV
Social class distribution of cases by sex

Social class	Men		Women		Totals	
	No.	%	No.	%	No.	%
I ..	14	13	12	8	26	10.2
II ..	14	13	15	11	29	11.4
III ..	17	15	20	13	37	14.2
IV ..	17	15	10	8	27	10.7
V ..	47	43	47	34	94	37.4
Unknown	2	3	39	27	41	16.1
	111	100	143	100	254	100.0

General's classification of occupations to all but 16 per cent of cases. Married women were allotted according to the occupations of their husbands.

There were 9 men and 5 women listed as retired from their occupations, a total of 14.

There were 24 men and 28 women listed as unemployed, a total of 52 persons, i.e. 20.5 per cent of all cases; this is a high percentage. It was not possible to establish for how long these persons had been unemployed, or whether they were in fact unemployable by reason of personality or illness problems.

AGE

TABLE V
Age distribution of all persons by sex

Age	Men		Women		Totals	
	No.	%	No.	%	No.	%
10-19 ..	14	13	10	7	24	9.4
20-29 ..	27	25	44	31	71	28.0
30-39 ..	19	17	26	19	47	18.9
40-49 ..	20	18	28	20	48	19.0
50-59 ..	12	11	18	13	30	11.9
60-69 ..	16	15	8	6	24	9.5
70-79 ..	3	3	7	5	10	4.0
80-89 ..	0	0	0	0	0	0.0
	111	100	143	100	254	100.0

The youngest patients were two girls both aged 13 years. The female rate is higher than the male throughout this series, except for the age groups 10-19 and 60-69 in which males do predominate. The highest percentage in both

sexes occurs in early adulthood (20-29), a finding in agreement with that of Evans (1967) for an Oxford series.

MARITAL STATUS

TABLE VI
Marital status, all persons by sex

Marital status	Men		Women		Totals	
	No.	%	No.	%	No.	%
Single ..	41	37	43	30	84	33.3
Married	47	43	71	50	118	46.5
Divorced	6	6	9	6	15	6.0
Separated	14	13	10	7	24	9.4
Widowed	2	2	9	6	11	4.3
Cohabiting	1	1	1	1	2	0.8
Totals ..	111	100	143	100	254	100.0

In both men and women the married state ranks highest. Half of the women were married and slightly less than half of the men. The percentage of men divorced or separated was higher than that of divorced or separated women (18.5 per cent for men, 13.3 per cent for women). It would appear from the figures for age and civil status that young married women constitute the largest group; the fact that in the figures for direct referrals to hospitals (Table I) women as a whole made up 66 per cent of the total also supports the view that young women, especially young married women, are the most prone to resort to deliberate self-injury.

METHODS OF DELIBERATE SELF-INJURY

TABLE VII
Method of self-injury—both sexes

Method	Men		Women		Total	
	No.	%	No.	%	No.	%
Poison ..	76	69	116	80	192	75.6
Cutting	20	18	8	6	28	11.0
Drowning	5	5	9	6	14	5.5
Gassing	7	6	8	6	15	6.0
Precipitation	0	0	2	1	2	0.8
Hanging/ Strangulation	2	2	0	0	2	0.8
Electricity	1	1	0	0	1	0.4
Totals ..	111	100	143	100	254	100.0

TABLE VIII
Type of poison employed

Poison	No.	%
Barbiturates	112	58.4
Other hypnotics	14	6.9
Analgesics	40	20.8
Tranquillizers	12	6.3
Antidepressants	2	1.0
Combined methods including drugs and alcohol	8	4.4
Not specified	4	2.2
	192	100.0

Without doubt, the barbiturates were the commonest drugs used; women as a whole resorted to poisons far more than men. Poisonings constituted 76.2 per cent of all cases in these series, and 23.8 per cent of cases resorted to the list of remaining measures as listed in Table VII.

RELIGION

A relatively high percentage of Roman Catholics, namely 20 per cent of all our cases, is of interest. Middleton, Ashley and Clark (1961) found a significantly higher proportion of Roman Catholics in a hospital series of deliberate self-injury in Gateshead than in a sample of admissions for all causes.

INTENTION

Any attempt to assess the patient's intentions in resorting to deliberate self-injury is extremely difficult. So many defences may be encountered; and psychological defences against the frank confession of what the patient had in mind at the time of the attempt are difficult to overcome. However, we asked the patients to describe their intention as honestly as possible, and the questions were asked more than once in every case. The questions centred on whether the patient really intended to die, or whether the act was a 'cry for help', an appeal for some kind of way out of a difficult situation of one sort or another.

About 50 per cent of the patients stated that they had intended to destroy themselves; 32 per

cent admitted that their action was an attempt to get help for a difficult situation in their lives, arising from problems they were unable to resolve either by themselves or with the help of those directly living with them—relatives, friends or acquaintances to whom they did or might have had access.

However, the establishment of intention is difficult, and, as Kessel (1965) points out, little credence can be placed on these statements, as they do not represent true recollections.

TIME OF DAY

The first half of the night seems to be the most favoured time for resorting to the act, followed by the first half of the day; possibly because it is at these hours that people are most likely to be close at hand to intervene and to take action to prevent the fatal consequences of the act.

DAY OF WEEK

The day most favoured for the attempt is Thursday for women and Monday for men—not the week-ends. Altogether, Thursday and Monday are the commonest days for attempting self-injury in this series. Perhaps the first day of the week and the second day before the week-end provide the greatest strains on morale for both sexes.

MONTH OF THE YEAR

In this series March and September showed a slightly larger number of admissions.

DIAGNOSIS

Of the depressions, 20 per cent were more severely ill with endogenous depression, i.e. depression without apparent evidence of precipitating causes. One fifth of cases bore no real evidence of illness, and were classified as conditions of 'manipulative behaviour', in which patients were drawing attention to problems which needed solution through access to hospitals, perhaps because no other avenues of attention were so readily available. Kessel (1965) found similar cases without psychiatric illness in 26 per cent of males and 20 per cent of females in his Edinburgh series. In our series, there were 17.5 per cent of men and 25 per

TABLE IX
Diagnosis. All admissions by sex

Diagnosis	Men		Women		Totals	
	No.	%	No.	%	No.	%
Depressions	61	56	71	49	132	52.0
Schizo- phrenia	1	1	7	6	8	3.2
Anxiety neurosis	5	5	8	6	13	5.1
Epilepsy	1	1	1	1	2	0.8
Alcoholism/ Drug addiction	10	9	8	6	18	7.1
Personality disorder	15	14	12	9	27	10.6
No psychi- atric condition	18	18	36	25	54	21.3
Totals ..	111	100	143	100	254	100.0

cent of women who showed evidence of distress but no features in their history or clinical presentation which would lead to any psychiatric diagnosis. As Kessel so rightly emphasizes, the object of investigation of these persons is to elucidate the personal and social crises which lead to their self-injurious actions.

PREVIOUS MEDICAL SUPERVISION

The past histories in this series of 254 cases revealed that 43 men (40 per cent) and 69 women (41 per cent), a total of 112 patients (44 per cent), had received psychiatric care in the past through admission to hospital units or through attendance at out-patient departments, and 35 men (32 per cent) and 33 women (11.5 per cent) had made previous attempts (20.4 per cent in all). There were also 40 patients (15.7 per cent) who were receiving psychiatric care in the current period just before their action, and 32 patients (12.5 per cent) who were currently receiving care other than psychiatric for various physical ailments.

ASSOCIATED PROBLEMS

In Table X more than one associated problem might have been present at the time of the patient's resort to deliberate self-injury.

TABLE X
Associated problems precipitating action of deliberate self-injury

Associated problem	Men	Women	Total
Marital discord	23	39	62
Unhappy love affair ..	15	15	30
Difficult family relationships	4	9	13
Financial/employment ..	20	19	39
Recent bereavement ..	1	4	5
Social isolation	5	3	8
Reaction to physical illness	13	11	24
Pregnancy/puerperium ..		10	10
Psychosexual deviation ..	3	0	3
Social chaos	13	7	20
Housing problems	0	0	0
Study problems	1	2	3
Awaiting legal proceedings	2	1	3
Unknown	5	7	12

RANKING ORDER OF ASSOCIATED PROBLEMS

When marital and love problems are added together, they contribute to 36 per cent of all associated problems. Relations between the sexes before and during marriage are the most significant factors precipitating deliberate self-injury, as has been stressed by Kessel (1965).

The term 'social chaos' refers to all cases in which there are several serious social problems occurring together, such as people living with overwhelming social problems, e.g. homelessness with drifting habitation; a broken marriage and/or seriously severed emotional attachments; unemployment or inability to work, all of which are manifest in the same person.

TABLE XI
Ranking order of associated problems for both sexes

Associated problems	Men	%	Women	%	Total	%
Marital discord	23	21	39	26	62	24
Financial employment	20	18	19	13	39	15
Unhappy love affair	15	14	15	10	30	12
Physical illness	13	12	11	8	24	10
Social chaos	13	12	7	6	20	4

SOCIAL CIRCUMSTANCES

For cases admitted to the Psychiatric Emergency Unit in 1967, we were able to investigate more closely certain family circumstances: in 102 cases, 48 of men and 54 of women, we were able to ascertain the facts recorded in Table XII.

TABLE XII
Social circumstances (1967 admissions only)

	Men	Women	Total	%
Immediate members of family alive ..	40	51	91	92
Recent contact with family (within 2 weeks) ..	27	38	65	66
Contact with family 4 weeks ago ..	13	12	25	26
Residing in own home	23	29	52	55
Residing in lodgings	19	19	38	38
Residing in Local Authority placement	0	3	3	3
Residing with children	0	3	3	3
No fixed abode ..	3	1	4	4

It would be difficult to draw many conclusions from the list of Social Circumstances recorded in Table XII, but contacts with members of the families seemed frequent enough. Perhaps the numbers who lived in their own homes was high (55 per cent), but lodging dwellers were also numerous (38 per cent).

EARLY FAMILY HISTORY

Out of this series of 254 patients there were 180, 79 men and 101 women, about whom we were able to extract information on their early formative years. These 180 patients constituted 71 per cent of our series. We classified them into three groups:

Group A (severely disturbed early life) consisted of persons who had experienced severe deprivations in their lives up to age 15. Deprivations were made up of loss of one or both parents through death, divorce or separation, illegitimacy and being brought up in orphanages. They constituted 42.2 per cent of all cases.

TABLE XIII
Disturbances in early life—both sexes (180 cases)

	Group A		Group B		Group C		Total	%
	No.	%	No.	%	No.	%		
Men ..	35	44	12	15	32	40	79	100
Women ..	41	41	19	20	41	40	101	100
Totals ..	76	42	31	17	73	40	180	100

Group B (moderately disturbed early life) consisted of persons who experienced continual family tensions due to severe personality disorder in parents, resulting in frequent family quarrels; alcoholism in the home was frequent. They constituted 17 per cent of all cases.

Group C consisted of patients brought up in seemingly stable homes with happy and well adjusted parents. They constituted 40 per cent of all cases.

Out of the cases assessed for serious disruptive experiences in early life 59.2 per cent revealed evidence of such disturbances (see Table XIII).

DISPOSAL

In this series of 254 admissions to the Psychiatric Emergency Unit of a general hospital, a number of patients had to be transferred for treatment in mental hospital units. In all, 37 men (34 per cent) and 45 women (31 per cent), a total of 82 patients (32 per cent) were so transferred.

DISCUSSION

Kessel (1965) suggested that the term 'attempted suicide' was inappropriate and should be discarded. He declared that 'the majority of acts . . . were stupid and senseless and patients themselves acknowledged this'. Kessel continues—'The patterns of clinical practice will then be to ascertain whether self-poisoning (self-injury) has taken place, and if it has to arrange, irrespective of the physical state of the patient, that a psychiatric examination is performed before the patient is discharged'.

Certainly the term 'deliberate self-injury' is more appropriate than 'attempted suicide'.

The patient resorts to an act of injuring himself or herself with the purpose of drawing attention to problems, trivial or serious, in his or her personal life. It may even be more correct to choose the term 'demonstrative self-injury' since the self-injury is, in fact, a demonstrative act aimed at promoting a crisis of some sort in order to secure help.

We tried to establish whether there was an increasing incidence after a period of four years. We did find a slight increase between 1963 and 1967, but by no means a dramatic one; nevertheless the continuing incidence is high, being about 112 recognizable cases per 100,000 of the population, 9 times the incidence of successful suicide; the actual number must be higher because many are treated by general practitioners and never referred to hospitals.

In this mixed rural and urban area, the overall incidence is lower in the rural parts, as Table I clearly indicates, and women suffer in relation to men in a proportion of 2 to 1. Among the cases examined in more detail in a psychiatric observation ward, the incidence would seem to be highest in younger married women. Difficult love affairs and marital troubles figure prominently in 36 per cent of cases. Manipulative behaviour without evident psychiatric illness was demonstrated in 20 per cent in the same series, and this bears out Kessel's finding that a bad relationship with a key individual, a spouse especially, is a dominant factor in many cases. In 10.8 per cent there were personality disorders manifesting behaviour disturbance culminating in self-injury, which adds further weight to the notion that the act is an attempt to demonstrate how much a problematic life situation bears upon a difficult personality.

An analysis of the early family history in this series presents evidence that many patients come from broken homes—parents divorcing and separating, illegitimacy, fostering, adopted homes, and orphanages loom large in the background. The patients are handicapped in earlier years, and in later life succumb to stresses, especially those which involve the shattering of dependency upon others, such as broken love affairs and difficulty in marriage.

In the series admitted to the Psychiatric Emergency Unit, poisoning accounted for 76 per cent of the cases, with barbiturates the most prominent drug—a finding which accords with that of other workers—Stengel and Cook (1958), Kessel (1965) and Evans (1967). The 'pleasantness' of the act was kept in mind by the 'actor' as much as the utilitarian purpose of grasping for help.

It is best to regard deliberate or demonstrative self injury as constituting a continuous spectrum of disturbances varying from attempts to get help in circumstances such as unhappy love affairs and financial troubles, to more serious conditions, such as endogenous depression. And precisely because the spectrum is continuous it makes it all the more necessary to ascertain the psychiatric import of the act.

SUMMARY

An investigation of deliberate self-injury ('attempted suicide') in Mid-Sussex indicates an incidence of 112 per 100,000 population in the area, with a ratio of women to men of 2 to 1

(and a lower referral rate from rural than from urban areas). A closer scrutiny of 254 cases admitted to a Psychiatric Emergency Unit in Brighton revealed that most of the patients were younger married women, or persons suffering from depressions. Many patients were handicapped in earlier years by broken and disturbed homes. 'Deliberate self-injury' could be termed alternatively 'demonstrative self-injury', but the spectrum of degrees of severity would indicate the necessity for psychiatric examination of all cases. Poisoning, especially barbiturates ('deliberate self-poisoning'), is the most frequent agent resorted to in an attempt to draw dramatic attention to a personal difficulty.

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