Brit. J. Psychiat. (1971), **118**, 535–8

Minor Self-Injury

By BRIAN R. BALLINGER

Introduction

Self-injury is a frequent occurrence in both mentally subnormal and mentally ill patients. The aim of this study was to determine its prevalence and nature in hospital populations of such individuals.

Self-injury is common during normal early development: many infants scratch, hit or bite themselves, bang their heads or pull their hair. Self-injury is also found in children deprived of maternal care or in institutions and in the psychoses of childhood (Green, 1967).

Berkson and Davenport (1962) reported stereotyped movements in two-thirds of a group of severely subnormal individuals, and some of these resulted in self-injury. They found a negative correlation with intelligence.

Self-injury is seen in neurotic conditions, and in both functional and organic psychoses (Battle and Pollitt, 1964). Groups of incidents of self-injury may occur among the inmates of institutions. Offer and Barglow (1960) have described an outbreak of wrist scratching and cutting in patients aged 14 to 22 years in a small psychiatric unit.

Menninger (1938) suggested that self-mutilation may be a form of attenuated suicide, a compromise which averts total annihilation.

Method

For the purpose of this study, self-injury was defined as any painful or destructive act, committed by the patient against his own body. Accidents, tearing clothes, window-breaking, swallowing dirt and refusal of food were excluded. Nail-biting was the subject of a separate study (Ballinger, 1970). Rubbing and scratching were only included when persistent and causing visible injury.

The study was limited to examples of self-injury occurring within the previous month and whilst the patient was in hospital. All patients were examined by the writer, and the further details were obtained from the ward nursing staff.

All the patients in Strathmartine Hospital, Dundee on 1 February 1969 (N 631) were studied, except for 5 who were discharged before they could be examined. Strathmartine Hospital is the only hospital for the mentally subnormal in the Eastern Region, Scotland. The intelligence quotients were taken as noted in the case records.

All the patients in the Royal Dundee Liff Hospital (N 598) on 1 November 1969 were studied, except for 14 who were discharged before they could be examined. The Royal Dundee Liff Hospital is a psychiatric hospital serving Dundee and the surrounding districts. The diagnoses were taken as recorded in the case notes.

Results

In the subnormality hospital, 93 out of 626 patients (15 per cent) had injured themselves in the previous month: 46 out of 343 males (13 per cent) and 47 out of 283 females (17 per cent). In the psychiatric hospital 20 patients out of 584 (3 per cent) had injured themselves in the previous month: 6 out of 226 males (3 per cent) and 14 out of 358 females (4 per cent). The distribution according to age is shown in Table I.

There did not seem to be any clear relationship between self-injury and length of stay in hospital in either group, but the patients admitted to the subnormality hospital before 1940 had a rather lower prevalence than the remainder of the patients in that hospital (7 out of 114 or 6 per cent).

The distribution of self-injury according to intelligence quotient in the subnormality hospital is shown in Table II. In this hospital self-injury was significantly more prevalent amongst

https://doi.org/10.1192/bjp.118.546.535 Published online by Cambridge University Press

TABLE I
Self-injury and age

Age range	Mentally subnormal			Mentally ill		
	Total	Self-injury	% Self-injury	Total	Self-injury	% Self-injury
0–9	40	7	17·5	0	0	0·0
10–19	102	18	17·9	4	2	50·0
20–29	151	27	17·9	34	0	0·0
30–39	117	13	11·1	41	1	2·4
40–49	109	14	12·8	88	1	1·1
50–59	66	6	9·1	96	3	3·1
60–69	33	7	21·2	142	7	4·9
70 and over	8	1	12·5	179	6	3·3
Total	626	93	14·9	584	20	3·4

the 161 patients who were non-ambulant or who walked with difficulty, occurring in 36 (22 per cent) of them ($\chi^2 = 9·7$, $p<0·01$).

TABLE II
Self-injury and IQ in subnormals

IQ	Total	Self-injury	% Self-injury
0–19	143	42	29·4
20–35	146	26	17·8
36–51	144	15	10·4
52–67	142	8	5·6
68 and over	51	2	3·9

In the psychiatric hospital population, more than half the instances of self-injury occurred in schizophrenics, but instances were also found in patients with organic psychosis, depressive psychosis, paranoid psychosis, personality disorder and epilepsy (see Table III).

TABLE III
Self-injury and diagnosis in psychiatric hospital patients

Diagnosis	Total	Self-injury	% Self-injury
Organic psychosis	141	4	2·8
Schizophrenia	170	11	6·5
Depressive psychosis	108	2	1·8
Mania and hypomania	15	0	—
Paranoid psychosis	63	1	1·6
Personality disorder and neurosis	56	1	1·6
Other	31	1	3·2

Thirty out of 93 (32 per cent) subnormals and 9 out of 20 (45 per cent) psychiatric patients who injured themselves were regularly engaged in some form of occupational or industrial therapy off the ward. In each case this was lower than the overall rate for the hospital.

Only 42 out of 93 subnormals (45 per cent) had been visited by relatives or friends during the preceding three months, and this was significantly less than the rate of visitation for the rest of the hospital population, which was 59 per cent ($\chi^2 = 5·8$, $p<0·02$).

In the subnormality hospital the types of self-injury were picking, striking, scratching, banging, biting, pulling hair out and rubbing (see Table IV). Some patients injured themselves in more than one manner. In this sample self-biting and pulling hair out did not occur in any patients with IQs over 35. Some forms of self-injury tended to occur particularly at one site, and biting was usually confined to the upper limb, whereas self-striking mainly involved the face and head. Picking the skin caused large ulcers in a few instances, sometimes even with destruction of cartilage.

In the psychiatric hospital population the forms of self-injury were scratching, picking, striking, rubbing, cutting and tying string round fingers (see Table IV).

The nursing staff were asked about the factors that appeared to provoke self-injury. In the subnormality hospital these were given as annoyance (19 instances), frustration (6), excitement (4), boredom (2), attention seeking

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TABLE IV
Type of self-injury, number of instances

	Mentally subnormal	Mentally ill
Picking	35	7
Striking	20	4
Scratching	19	8
Banging	17	—
Biting	14	—
Pulling out hair	6	—
Rubbing	6	1
Cutting	—	1
Tying string round arm	—	1
Total instances	117	22
Total patients involved	93	20

(1), depression (1), constipation (1), involuntary movements (1) and no apparent cause (58). In the psychiatric patients the causes were given as agitation (3), delusions (2), anger (2), hallucinations (1), depression (1), boredom (1) and no apparent cause (10).

In 14 of the mentally subnormal and 4 of the psychiatric patients self-injury was said by the nursing staff to produce major difficulties in management. This was usually because of fears that the patients might injure themselves severely.

Of the subnormals 57 and of the psychiatric patients 10 were receiving psychotropic drugs, in some instances partly to control the tendency to self-injury. According to the ward staff, medication may have reduced the incidence of self-injury in 14 of the subnormals, and one psychiatric patient, the drugs concerned being phenothiazines (7), antidepressants (3), benzodiazepines (2), barbiturates (2) and lithium (1).

In a few instances restraint was used.

DISCUSSION

The definition of self-injury adopted was inevitably somewhat arbitrary, and some of the acts excluded may have sometimes involved an element of self-injury, e.g. window-breaking and eating dirt. The restriction of the study to recent in-patient behaviour led to the exclusion of all instances of attempted suicide.

Self-injury was common in the mental subnormality hospital, and some of the less severe instances may have been missed. It was commoner in patients in the lower IQ ranges; which supports the concept that it may be regarded as an aspect of constitutional failure of development. However, as the more severely subnormal patient was less likely to be involved in activities and occupations, environmental factors were also involved.

The staff could suggest possible precipitating factors in only a minority of the subnormal patients. A few had features suggesting the presence of a superadded mental illness, but these could not be clearly related to the self-injury.

In the psychiatric hospital population only 3 per cent of the patients injured themselves, as opposed to 15 per cent of the subnormals. Most psychiatric patients did not give any explanation of their self-injury. A 69-year-old paranoid psychotic patient who picked her face said that she had wire coming out through her skin. A schizophrenic girl of 17 years said that her self-inflicted scratches were caused by cats.

In both hospitals self-injury occurred over a wide range of ages. In the subnormals there was a fall in the prevalence of self-injury after the age of 30, apart from a peak in the seventh decade.

It was my impression that environmental restriction, boredom and frustration played a part in worsening self-injury in many patients. The majority of patients who injured themselves did not take part in any regular activity off the ward, and most of them spent the greater part of their time lying or sitting in the ward without any occupation. In some instances the severity of the mental subnormality or illness made it difficult or impossible to provide any constructive occupation, and staff shortages limited the amount of individual attention that could be given.

In both hospitals self-injury was said to be a major management problem in only a minority of patients, and sometimes this was because of fears of severe injury which may not always have been realistic. The staff appeared to have more difficulty in dealing with self-injury in patients with personality disorders or less severe mental subnormality than in those with gross

https://doi.org/10.1192/bjp.118.546.535 Published online by Cambridge University Press

psychosis, dementia or severe mental subnormality. Some staff members thought that such behaviour, sometimes described as being 'attention seeking', should be dealt with by ignoring it. Others thought that this made matters worse, and that self-injury could best be avoided by forming a good relationship with the patient.

Drugs appear to be of benefit in only a few patients and then not always clearly so. In most instances it is probably more important to provide individual attention, occupation and diversity of surroundings, at a level appropriate to the individual.

Summary

A survey was made of self-injury in patients in a mental subnormality hospital and a psychiatric hospital. Ninety-three out of 626 subnormals (14·9 per cent) and 20 out of 584 psychiatric patients (3·4 per cent) had injured themselves in the previous month. The relationship of self-injury to other characteristics of the patients is considered. It is suggested that individual attention, recreation and constructive occupations may be more important than drug treatment in the alleviation of these symptoms.

Acknowledgements

I wish to thank the Consultant Psychiatrists at Royal Dundee Liff Hospital and Strathmartine Hospital for their helpful suggestions and for permission to study patients under their care. I am grateful to Professor I. R. C. Batchelor for his advice during the preparation of this paper.

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A synopsis of this paper was published in the *Journal* for September 1970.

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(*Received 8 April 1970*)

https://doi.org/10.1192/bjp.118.546.535 Published online by Cambridge University Press