No harm done? Psychological assessment in the A&E department of patients who deliberately harm themselves

L Head, G I Campbell-Hewson and V O'Keane

ABSTRACT

Objective: To determine whether psychosocial assessments of patients presenting to the Accident and Emergency (A&E) Department at Addenbrooke's Hospital, Cambridge, with deliberate self-harm are recorded adequately in the case notes, using the criteria of the 1994 Royal College of Psychiatrists' consensus statement on managing adult deliberate self-harm in hospital.

Design: A cross-sectional study of case notes.

Subjects: A total of 338 patients (accounting for 404 episodes of deliberate self-harm) who presented consecutively between 1 January and 30 June 1996.

Results: 56% of episodes resulted in admission to a general hospital bed. In only 11% of conscious patients were adequate psychosocial assessments recorded in the case notes. Little psychosocial information was recorded in the notes of those patients discharged without follow-up from accident and emergency.

Conclusions: In the A&E department of this teaching hospital, there is inadequate recording of important psychosocial information in the case notes of patients who present with deliberate self-harm.

Studies conducted by Gardner in Addenbrooke's Hospital, Cambridge, between 1974 and 1979 concluded that the psychological and social evaluation of patients who presented with deliberate self-harm could be carried out safely by non-psychiatric junior medical staff. Gardner did, however, emphasise that these doctors would need appropriate training. His work was influential in developing the Department of Health's guidelines for the management of deliberate self-harm published in 1984. These overturned the earlier recommendations of the Hill Report that all patients presenting with deliberate self-harm should be referred to a psychiatrist. However, 10 years later the Royal College of Psychiatrists reported that the 'planning and delivery of services are in a state of disarray', and published a consensus statement setting standards for the provision of deliberate self-harm services in general hospitals. This has been adopted as official College policy. The statement sets standards for the assessment of patients who present with deliberate self-harm by psychiatric and non-psychiatric medical staff in both the accident and emergency (A&E) department and inpatient wards.

Several studies of management strategies for patients who present with deliberate self-harm have shown that the repetition rate can be reduced, but none has been statistically powerful enough to show an influence on the suicide rate. In spite of this, the authors of the consensus statement expressed the hope that by setting and working to standards, the quality of services for these patients would be improved and progress would be made in achieving the suicide reduction targets set out in the British government's 1992 Health of the nation strategy. Since a quarter of all suicide patients have attended hospital in the previous year with a non-fatal act of deliberate self-harm, the target of a 15% reduction in the suicide rate by the year 2000 could be met by halving the number of these patients who kill themselves within the next year. The identification of factors associated with a high risk of subsequent suicide (such as the presence of mental illness) and of repetition of deliberate self-harm is therefore emphasised.

We analysed the case notes of patients who presented to the A&E Department of Addenbrooke's Hospital with deliberate self-harm over a six-month period. We aimed to ascertain whether adequate psychosocial assessments according to the standards set in the Royal College of Psychiatrists' consensus statement were being recorded. We also examined whether admission to hospital was influenced by psychosocial factors or by medical considerations only. Finally, we compared the management of deliberate self-harm in this department in 1996 with that in 1979.

Methods

Case notes were examined for all patients aged 10 years and upwards who presented to this A&E department with a diagnosis of deliberate self-harm between 1 January 1996 and 30 June 1996. During this period a total of 23 junior doctors had worked in the department. Patients were excluded if they had taken an overdose of alcohol and/or recreational drugs only. The study patients were identified by a weekly computer review of patients diagnosed as having self-poisoned, overdosed or having a self-inflicted injury. In addition, the letters sent to general practitioners on every attendance were screened daily by one investigator (GCCH) to ensure that no patients were excluded from the study because of miscoding or unusual forms of self-harm. The case notes identified were studied by another investigator (LH) and the adequacy of the documentation of
the deliberate self-harm episode was recorded. The information collected is summarised in Table 1.

Analysis

Differences between groups of subjects on categorical variables were tested using \( \chi^2 \) analyses. Group results are expressed as the mean (SD) unless otherwise stated.

Results

Over the six-month study period, 404 case records were identified and examined. This number refers to episodes of deliberate self-harm rather than the 338 individual patients (132 men and 206 women: mean (SD) age 30.4 (13.7) years). Forty-three patients presented more than once during the study period (19 men and 24 women: mean age 29.2 (9.9) years): 27 of them presented twice, 13 three times, three presented four times, and one man presented seven times. Three patients (two men and one woman) died in hospital as a result of their deliberate self-harm attempts – two by hanging and one after an overdose of tricyclic antidepressants. They are included in the study as they were presumed alive at the time of presentation. One other patient included in the study committed suicide (by carbon monoxide poisoning) during the study period. In the 12 months after the study, a further five patients in this cohort committed suicide or died as a result of undetermined injury (coroner’s records and A&E records). This represents a suicide rate of approximately 1% in the year following the index attempt, and is in keeping with other studies.

Description of episodes

The characteristics of the 404 episodes of deliberate self-harm are shown in Table 2. Most episodes of deliberate self-harm were overdoses (86%). The drugs used most commonly were paracetamol or paracetamol compound preparations (38% of episodes), hypnotic or sedative drugs (20%), and antidepressants (19%).

Adequacy of histories recorded in the notes

Eighty-one per cent (299 of 367) of the records for the episodes of deliberate self-harm in conscious patients contained information about the patients’ mental state, and 262 (72%) contained entries relating to suicidal risk or intent (whether this was high, low or uncertain). However, for several of the categories identified as important, fewer than half of the case notes had information. Details about past psychiatric history were noted in 181 (49%) records, a similar number (178 or 49%) had entries relating to use of alcohol, and 157 (43%) mentioned the absence or presence of previous deliberate self-harm. In only 11% of cases was there an entry under all five of the headings.

Outcome

In 228 cases (56% of episodes) patients were admitted to a medical or surgical bed followed by routine referral for further psychological assessment. In 19% of cases patients were discharged with no stated follow-up. Various management strategies were proposed for the remaining patients (Table 3).

| Table 2. Episodes of deliberate self-harm seen at the accident and emergency department over the six-month study period (n=404). |
|---------------------------------------------------------------|
| **Characteristic**                                           | **Episodes** | **Number** | **(%)** |
| Method of self-harm                                          |              |            |        |
| Overdose                                                      | 348          | (86)       |        |
| Cutting                                                       | 49           | (12)       |        |
| Carbon monoxide inhalation                                   | 7            | (2)        |        |
| Jump or threat of jump from height*                          | 4            | (1)        |        |
| Hanging                                                      | 2            | (0.5)      |        |
| Others (including self-mutilation)                           | 9            | (2)        |        |
| Concurrent use of alcohol recorded                           | 149          | (37)       |        |
| Deliberate self-harm while a psychiatric inpatient           | 33           | (8)        |        |
| Drugs used in overdose†                                        | 348          | (38)       |        |
| Paracetamol/paracetamol compound preparations                | 154          | (38)       |        |
| Benzodiazepines/hypnotics/sedatives                           | 79           | (20)       |        |
| Antidepressants                                              | 75           | (19)       |        |
| Other non-prescription analgesics                             | 53           | (13)       |        |
| Major tranquillisers                                         | 29           | (7)        |        |
| Toxic chemicals (bleach etc)                                 | 3            | (1)        |        |
| Others                                                       | 79           | (20)       |        |
| Non-toxic ingestions‡                                         | 20           | (5)        |        |

*Situation where patients either jumped or were talked down from a potentially lethal height.
†137 episodes of self-poisoning involved more than one substance other than alcohol.
‡Where the quantity of drug was less than or equal to the maximum 24-hour dose as recommended by the British National Formulary.
Factors associated with general hospital admission

There was a statistically significant relation between admission to a medical or surgical bed and loss of consciousness. All but one of 37 unconscious patients were admitted to hospital compared with 192 of 367 (52%) patients who were conscious or presumed to be so on presentation to A&E ($\chi^2=27.66$, df=1, $P<0.0001$). General hospital admission was also associated with overdose rather than other types of deliberate self-harm. Altogether 215 of 348 (62%) patients who took overdoses were admitted to hospital compared with 13 of 56 (23%) who did not take an overdose ($\chi^2=10.51$, df=1, $P=0.001$). It also held for overdoses of antidepressants. Fifty-six of 75 (75%) patients who overdosed on antidepressants were admitted ($\chi^2=6.72$, df=1, $P=0.01$). All but two of the overdoses of antidepressant involved tricyclic antidepressants and/or selective serotonin re-uptake inhibitors. Patients who overdosed on serotonin re-uptake inhibitors alone (24 of 38 (63%)) were less likely to be admitted than those who took tricyclic antidepressants (30 of 35 (86%), $\chi^2=5.39$, df=1, $P=0.02$). Serious suicidal risk or intent, as represented by a statement in A&E department case notes, was also associated with admission to hospital. Of 144 (70%) patients whose records contained a statement suggesting serious suicidal risk, 101 were admitted to a general bed compared with 127 of the remaining 260 patients (49%) $\chi^2=17.09$, df=1, $P<0.0001$).

Factors associated with no psychiatric follow-up

Some form of follow-up was organised by the psychiatric services in 96 of the 176 (55%) episodes of deliberate self-harm that did not result in admission to hospital. In the remaining 80 episodes, there was no follow-up or general practitioner follow-up only. The following factors were associated with no follow-up in this group:

- No information about past psychiatric history in the records (56 (70%) contained no such information compared with 40 (42%) of those followed up, $\chi^2=14.13$, df=1, $P<0.0001$).
- No statement in the records suggesting serious or equivocal suicidal risk (only 11 (14%) contained such a statement compared with 32 (33%) for those followed up, $\chi^2=15.38$, df=1, $P<0.0001$).

If overdose patients were not admitted to Addenbrooke's Hospital (possibly because the overdose was not considered medically serious), they were actually less likely to have any psychiatric follow-up than patients who had used other forms of deliberate self-harm. Thirty-one of 43 (72%) episodes involving other forms of deliberate self-harm resulted in discharge with follow-up compared with 65 of 133 (49%) episodes involving overdoses.

Key Points

Adequate assessment of patients who deliberately self-harm is essential to the appropriate management of this group with a greatly increased risk of suicide

In this study only 11% of cases of deliberate self-harm presenting to the accident and emergency department had adequate psychosocial information recorded in the casenotes

Nineteen per cent of patients were discharged from the accident and emergency department with no specialist psychiatric assessment or follow-up

General hospital admission was mainly associated with medical seriousness of deliberate self-harm rather than psychiatric risk factors

The incidence of and general hospital admission rate for deliberate self-harm at this hospital did not alter appreciably between 1979 and 1996

Discussion

In only 11% of cases of deliberate self-harm involving conscious patients seen in the A&E department of a teaching hospital was an adequate psychosocial assessment (as recommended by the Royal College of Psychiatrists' consensus statement) recorded in the notes. This is disappointing, particularly when account is taken of the long-standing interest in the assessment and management of deliberate self-harm at Addenbrooke's Hospital. However, we suspect that the situation here differs little from that elsewhere. Similar studies carried out in other A&E departments have also shown low levels of documentation. This is a particular problem when patients are discharged home directly from the A&E department as no other records will exist to form the basis of the discharge letters to the general practitioner.

Table 3. Outcome of presentation to accident and emergency (A&E) with deliberate self-harm (404 presentations).

| Outcome | Number | (%) |
|---------|--------|-----|
| Admission to medical or surgical ward | 227 | 56 |
| Discharged with no stated follow-up | 77 | 19 |
| Referred to psychiatry in A&E and discharged by psychiatrist | 25 | 6 |
| Referred to psychiatry in A&E and admitted to psychiatric ward | 15 | 4 |
| Returned to inpatient psychiatric ward | 19 | 5 |
| Discussed with psychiatrist by telephone | 10 | 2 |
| Referred to deliberate self-harm social worker | 14 | 3 |
| Discharged but noted to have definite arrangement for psychiatric follow-up | 13 | 3 |
| Discharged to general practitioner follow-up | 3 | 1 |
| Died in A&E | 1 | 0.25 |
For the group as a whole, admission to hospital was determined predominantly by medical rather than psychological factors. It was not possible to investigate thoroughly the relationship between various psychosocial factors and outcomes, largely because the recording of psychological information was so poor and because of the relatively descriptive, cross-sectional design of the study. A longitudinal design to collect information prospectively might have enabled identification of medical and psychological factors and interventions associated with repetition and other outcome measures.

Recent studies of the epidemiology of deliberate self-harm in Britain have shown that rates of deliberate self-harm, which increased substantially during the 1960s and 1970s, stabilised or even fell from the early 1980s but have shown signs of increasing since the end of the 1980s.\(^{14-17}\) Comparison of the incidence and management of deliberate self-harm in this A&E department in 1978–79, when Gardner's study was undertaken,\(^3\), and our own observations in 1996 shows remarkably similar numbers of cases (314 over seven months in 1978–79 and 324 over six months in 1996, using Gardner's exclusion criteria). We had expected that with increasing pressure on hospital beds, and in line with trends elsewhere, the proportion of cases of deliberate self-harm admitted to hospital would have fallen over this time.\(^{18,19}\) However in 1996 56% of patients were admitted to hospital compared with 60% in Gardner's study, showing that the admission rate has not changed appreciably.

Conclusions

The incidence of deliberate self-harm presenting to the A&E department and the pattern of admission has not altered since an earlier study carried out in this hospital 17 years ago. Only 11% of conscious, deliberate self-harm patients attending the A&E department of a teaching hospital have adequate psychological assessments recorded in their case notes. Management decisions are therefore being made on the basis of inadequate information. This raises the possibility that suicidal patients are being missed – particularly those who sustain no serious physical damage from the attempt at deliberate self-harm, and who are discharged home directly from A&E. Although individual patients suffered no known harm as a result of inadequate psychological assessments, this could occur. When a structured format or pro forma is used to assist non-psychiatric medical staff in making psychiatric assessments, documentation can be improved.\(^{20,21}\) We plan to use a structured format (Fig 1), based on the Royal College of Psychiatrists' consensus statement, to assess patients with deliberate self-harm in order to reinforce the teaching already given to doctors in A&E, and we plan to judge its effectiveness by repeating the study in the future.

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