

General practitioner contacts with patients before and after deliberate self harm

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SUMMARY

Background: Deliberate self harm (DSH) is an increasingly common problem. Although much attention is focused on suicide prevention by psychiatric services, the role of the general practitioner (GP) in the prevention of suicidal behaviour and in the aftercare of DSH patients is also important.

Aim: To examine the nature and timing of GP contacts with DSH patients before and after an episode of DSH, and patients' satisfaction with these contacts.

Design of study: Structured interviews with patients shortly after an episode of DSH and again approximately one year later.

Setting: A representative sample of 139 DSH patients presenting to a district general hospital.

Method: Patients were interviewed shortly after DSH and at follow-up about GP contacts, prescribed medication and psychiatric symptoms.

Results: At the time of DSH, 91.4% of patients were diagnosed with a psychiatric disorder (depression 69.8%), with 28% receiving treatment from psychiatric services. Two-thirds of patients had been in contact with their GP in the month before DSH, but only 13.3% reported expressing suicidal thoughts. Patients consulted their GP in the week following DSH in 40.6% of cases. Over half (57.9%) the patients discussed the reasons for their DSH at the first consultation and 69.5% reported that this was helpful. Overall, 64.3% of patients were satisfied with the follow-up consultations.

Conclusions: The major role of the GP in the prevention of suicidal behaviour is in the detection and treatment of depression, and in the aftercare of DSH patients.

Keywords: consultation; attempted suicide; mental disorder; depression; antidepressants.

Introduction

THE general practitioner (GP) has an important role alongside other clinicians in the prevention of suicidal behaviour by primary care and secondary psychiatric services.¹ GPs are often in a position to form long-term therapeutic relationships with patients and may have knowledge of their family background and psychosocial problems. Of all healthcare professionals, GPs are most likely to have had recent contact with patients before deliberate self harm (DSH). Several studies have reported high rates of contact with GPs in the month prior to DSH (63%,² 56%³). One reason for the high rate of contact is the considerable proportion of DSH patients who have depression (66.7%,⁴ 70.7%⁵). An educational programme about detection and management of depression for GPs on the Swedish island of Gotland resulted in improved management of depressive illness, with an associated reduction in the female suicide rate.⁶ However, this study requires replication.

Aftercare following DSH often involves the patient returning to the care of the GP, without any additional service input.⁷ A study of DSH patients presenting to hospital found that 72% received no outpatient psychiatric follow-up, while 83% saw their GP in the following six months, often for problems related to mental health.⁸ The potential role of the GP in aftercare of DSH patients therefore needs elucidation.

The aims of this study were to examine: the timing and nature of the last GP contact before an episode of DSH; details of the psychiatric treatment that patients were receiving from their GPs; the nature and frequency of GP contacts immediately after DSH and during a follow-up period; and patients' satisfaction with these contacts.

Method

Initial sample

Ethical approval for the project was obtained from the Oxford Psychiatric Research Ethics Committee. The participants were 139 community patients who were registered with a GP and who presented to the district general hospital in Oxford following an episode of DSH between February and December 1997 (the original sample of 150 patients included 11 psychiatric inpatients who were excluded from this study). The definition of DSH was that given for 'parasuicide' in the WHO/EURO Multicentre Study on Suicidal Behaviour,⁹ which included acts of self-poisoning and self-injury, but excluded self-cutting that was part of a repetitive pattern of self-mutilation. Patients were also excluded if they were aged less than 15 years, lived outside the Oxford District, or were unable to understand or otherwise participate in the study (for example, because of severe disturbance of mental state, or organic brain syndrome).

The timing of the initial interviews in relation to the index

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HOW THIS FITS IN*What do we know?*

Deliberate self harm (DSH) patients have high rates of psychiatric morbidity and repetition of self harm. Consultation rates are known to increase prior to DSH, suggesting crisis intervention by general practitioners (GPs) might help prevent DSH.

What does this paper add?

While the majority of DSH patients visit their GPs in the month before DSH, they may not present with psychological symptoms. A minority of these patients will be suicidal at that point and few of these will disclose their suicidal ideation, so detection of those at risk is problematic. Important roles for the GP in relation to prevention and management of suicidal behaviour appear to be careful detection and treatment of depression and involvement in aftercare of DSH patients.



episode of DSH was within 24 hours ($n = 5$); one to two days ($n = 60$); three to seven days ($n = 32$); one week to one month ($n = 39$); and greater than one month ($n = 3$). Details of the recruitment methods, the representative nature of the original sample of 150 patients, and their demographic and clinical characteristics, are described elsewhere.⁵

Follow-up sample

One hundred and ten (79.1%) of the 139 patients underwent follow-up interviews, which took place between 12 and 16 months after DSH in 100 (90.9%) cases, and between 17 and 20 months in 10 (9.1%) cases. There were no significant differences between those who were and those who were not followed up with respect to age, sex, previous episodes of DSH, or receipt of current psychiatric treatment.

Research instruments

The following schedules were used:

European Parasuicide Study Interview Schedules I and II. The schedules used in the WHO/EURO Multicentre Study¹⁰ were administered. Version I, used at the initial interview, included inquiry about demographic details, contact with health services, and the nature and timing of the last contact with the GP before the episode of DSH. Patients were asked if they had any suicidal thoughts at the time of the last contact, and if so, whether they had communicated these thoughts to the GP. Version II, used at the follow-up interview, included inquiry about repetition of DSH and contact with health services during the follow-up period. Patients were asked about the nature, timing and helpfulness of the first contact with the GP following DSH, and their satisfaction with contacts during the follow-up period. Details of treatment before and after DSH were confirmed where necessary by reference to psychiatric case notes.

ICD-10 Diagnostic Schedule. The nature and duration of current and past psychiatric symptoms were recorded at the ini-

tial interview and at the follow-up interview using a structured interview schedule based on ICD-10 research criteria¹¹ that was developed at the Centre for Suicide Research in Oxford.¹² The initial and follow-up assessments were based on the month prior to DSH and the follow-up interview.

Personality Assessment Schedule. One hundred and four patients agreed to be screened for personality disorder at the follow-up interview using the self-report version of the Personality Assessment Schedule (PAS).¹³

Adequacy of antidepressant dosages

For tricyclic antidepressants, a dosage of 150 mg a day was regarded as therapeutic. For selective serotonin reuptake inhibitors (SSRIs) and other antidepressants, the recommended dosages given in the *British National Formulary*¹⁴ were considered adequate.

Statistical analyses

The analyses were conducted using the Statistical Package for the Social Sciences.¹⁵ The χ^2 statistic (with Yates' correction), and Fisher's exact tests were used.

Results*Patient characteristics*

The demographic characteristics of the 139 patients are shown in Table 1. Self-poisoning was the most common method of DSH ($n = 134$ [96.4%]). Previous DSH had occurred in 64.2% of cases ($n = 88$). Psychiatric disorders were present in 127 (91.4%) patients; most commonly depression ($n = 97$ [69.8%]) and alcohol misuse ($n = 39$ [28.1%]). Of the depressed patients, 43 (44.3%) were severely depressed. Comorbidity of psychiatric disorders was present in 66 (47.5%) cases; most commonly comorbid depression and alcohol abuse or dependence (30 cases [21.6%]). Personality disorder was present in 47 (45.2%) cases, and comorbid psychiatric and personality disorders in 45 (43.3%).

Treatment for mental health problems at the time of DSH

At the time of DSH, 35 (25.2%) patients were receiving treatment for mental health problems from their GP, and 39 (28.0%) from the psychiatric services. Sixty-five (46.8%) were not receiving any psychiatric treatment and, of these, 33 (50.8%) were known to have a history of DSH. Sixty-nine (49.6%) patients had been prescribed psychotropic medication: 52 (37.4%) antidepressants (in therapeutic doses in 93% of these); 27 (19.4%) minor tranquillisers or hypnotics; and 15 (10.8%) antipsychotics. The antidepressants prescribed were mainly SSRIs (29 cases) and tricyclics (14 cases). There were no sex differences in these findings.

Of the 35 patients being treated solely by their GP, 30 (85.7%) were suffering from depression and 24 (68.6%) were receiving antidepressants (in therapeutic doses in 95% of cases). The antidepressants prescribed were SSRIs (16 cases), tricyclics (six cases) and other antidepressants (three cases).

Table 1. Characteristics of DSH patients at index episode of DSH.

Characteristics of DSH patients	Males (n = 57) n (%)	Females (n = 82) n (%)	Total (n = 139) n (%)
Age in years			
15–24	23 (40.4)	35 (42.7)	58 (41.7)
25–34	14 (24.6)	19 (23.2)	33 (23.7)
35–54	17 (29.8)	22 (26.8)	39 (28.1)
55+	3 (5.3)	6 (7.3)	9 (6.5)
Employment status			
Employed	25 (43.9)	30 (36.6)	55 (39.6)
Unemployed	13 (22.8)	13 (15.9)	26 (18.7)
Permanently sick	16 (28.1)	17 (20.7)	33 (23.7)
Student/housewife/retired	3 (5.3)	22 (26.8)	25 (18.0)
Method of DSH			
Self-poisoning	53 (93.0)	78 (95.1)	131 (94.2)
Self-injury	2 (3.5)	3 (3.7)	5 (3.6)
Both	2 (3.5)	1 (1.2)	3 (2.2)
Previous episodes of DSH	36 (64.3); n = 56	52 (64.2); n = 81	88 (64.2); n = 137
Psychiatric disorder	52 (91.2)	75 (91.5)	127 (91.4)
Personality disorder	19 (50.0); n = 38	28 (42.4); n = 66	47 (45.2); n = 104
Comorbidity of psychiatric and personality disorder	18 (47.4); n = 38	27 (40.9); n = 66	45 (43.3); n = 104
Treatment for psychiatric problems at time of DSH			
None	30 (52.6)	35 (42.7)	65 (46.8)
GP only	15 (26.3)	20 (24.4)	35 (25.2)
Psychiatric services	12 (21.1)	27 (32.9)	39 (28.0)
Prescribed psychotropic medication at time of DSH	27 (47.4)	42 (51.2)	69 (49.6)
Treatment for psychiatric problems offered after DSH	n = 57	n = 81	n = 138
None	1 (1.8)	3 (3.7)	4 (2.9)
GP only	7 (12.3)	6 (7.4)	13 (9.4)
Psychiatric services	49 (85.9)	72 (88.9)	121 (87.7)

Last contact with GP before DSH

Nearly one-third of the patients had seen their GP in the week before DSH and two-thirds within the previous month (Table 2). For those consultations occurring in the month before DSH, 53 (63.9%) included consultation about mental health problems, whereas 30 (36.1%) were exclusively about physical health problems. Of the 83 patients consulting their GP in the month before DSH, 28 (33.7%) said they had felt suicidal at the time, but only 11 patients (13.3%) had expressed these thoughts to the GP. Of the 68 patients who were already receiving or were newly prescribed psychotropic medication at the GP consultation before DSH, 38 (55.9%) used this in an overdose.

Treatment offered after DSH

Following DSH, 121 (87.7%) patients were offered treatment by the local specialist mental health services, 13 (9.4%) were referred back to their GP for psychiatric treatment, and four (2.9%) were offered no treatment.

Contacts with the GP after DSH

Forty-three (40.6%) patients consulted their GP within a week after DSH and 28 (26.4%) between one and four weeks (Table 3). Of the remaining patients, eight (7.5%) did not consult their GP during the follow-up period. Over half of the patients (59 [57.9%]) said that at this first consultation they discussed the emotional and psychosocial problems that may have contributed to the DSH and, of these, 41 (69.5%) said the consultation was helpful.

Overall, two-thirds of patients reported that the consultations with their GP during the follow-up period had been

good or very good (n = 65 [64.3%]); while 11 (10.9%) said they were disappointed. Those who were disappointed were no more likely to still be depressed at follow-up than those who were satisfied, but the numbers of patients involved were relatively small.

Treatment and outcome at follow-up

At follow-up, 16 (15.2%) patients were receiving treatment for mental health problems from their GP, 34 (32.3%) from the psychiatric services, and 55 (52.4%) were not receiving any treatment. Sixty-two (58.5%) patients still fulfilled the diagnostic criteria for a psychiatric disorder and 35 (31.8%) reported a further episode of DSH. Satisfaction with GP consultations during the follow-up period was unrelated to repetition of DSH during the follow-up period.

All 16 patients who were being treated solely by their GP for their psychiatric problems were being prescribed psychotropic medication — in 12 cases antidepressants. Thirteen (81.3%) met the diagnostic criteria for a psychiatric disorder and two (12.5%) reported further DSH.

Discussion

Summary of main findings

In this study of DSH patients presenting to a general hospital there was considerable psychiatric morbidity (91.4% had a psychiatric disorder and 69.8% were depressed), with 28% of patients in contact with psychiatric services. A quarter were being treated solely by their GP and 85.7% of these patients were suffering from depression. Although two-thirds of patients had consulted their GP within a month of DSH, the presenting problem was not always psychological and only a

Table 2. Contacts with GP before the index episode of DSH.

Characteristics of DSH patients	Males (n = 57) n (%)	Females (n = 82) n (%)	Total (n = 139) n (%)
GP contacts in year before DSH	n = 54	n = 76	n = 130
None	1 (1.9)	1 (1.3)	2 (1.5)
1	8 (14.8)	3 (3.9)	11 (8.5)
2-3	10 (18.5)	14 (18.4)	24 (18.5)
4 or more	35 (64.8)	58 (76.3)	93 (71.5)
Time between last GP contact and DSH	n = 53	n = 72	n = 125
1-7 days	13 (24.5)	25 (34.7)	38 (30.4)
1-4 weeks	20 (37.7)	25 (34.7)	45 (36.0)
1-3 months	10 (18.9)	14 (19.4)	24 (19.2)
More than 3 months	10 (18.9)	8 (11.1)	18 (14.4)
Reason for last GP contact (within 1 month of DSH)	n = 33	n = 50	n = 83
Physical health	8 (24.2)	22 (44.0)	30 (36.1)
Psychological health	23 (69.7)	22 (44.0)	45 (54.2)
Both	2 (6.1)	6 (12.0)	8 (9.6)
Suicidal at last GP contact (within 1 month of DSH)	9 (27.3); n = 33	19 (38.0); n = 50	28 (33.7); n = 83
Suicidal at last GP contact, expressed suicidal thoughts to GP (within 1 month of DSH)	2 (22.2); n = 9	9 (47.4); n = 19	11 (39.3); n = 28
Receiving psychotropic medication at time of DSH	26 (46.4); n = 56	42 (51.9); n = 81	68 (49.6); n = 137
Used medication prescribed at last GP contact in overdose	18 (69.2); n = 26	20 (47.6); n = 42	38 (55.9); n = 68

Table 3. Contact with GP after index episode of DSH and outcome at follow-up interview.

Characteristics of DSH patients	Males (n = 41) n (%)	Females (n = 69) n (%)	Total (n = 110) n (%)
GP contact in year after DSH			
None	3 (7.3)	5 (7.2)	8 (7.3)
1	1 (2.4)	4 (5.8)	5 (4.5)
2-3	5 (12.2)	11 (15.9)	16 (14.5)
4 or more	32 (78.0)	49 (71.0)	81 (73.6)
Timing of first GP contact after DSH	n = 40	n = 66	n = 106
No contact	3 (7.5)	5 (7.6)	8 (7.5)
Within one week	18 (45.0)	25 (37.9)	43 (40.6)
One week to one month	9 (22.5)	19 (28.8)	28 (26.4)
Greater than one month	10 (25.0)	17 (25.8)	27 (25.5)
Discussed emotional and psychosocial problems with GP at first contact after DSH	n = 38	n = 64	n = 102
No	14 (36.8)	25 (39.1)	39 (38.2)
Yes	23 (60.5)	36 (56.2)	59 (57.9)
Could not remember	1 (2.6)	3 (4.7)	4 (3.9)
Opinion of discussion with GP of emotional and psychosocial problems at first contact after DSH	n = 23	n = 36	n = 59
Bad/very bad	7 (30.4)	8 (22.2)	15 (25.4)
Good/very good	14 (60.9)	27 (75.0)	41 (69.5)
Can't remember	2 (8.7)	1 (2.8)	3 (5.1)
Opinion of contacts with GP during follow-up period	n = 38	n = 63	n = 101
Bad/very bad	6 (15.8)	5 (7.9)	11 (10.9)
Uncertain	7 (18.4)	18 (28.6)	25 (24.8)
Good/very good	25 (65.8)	40 (63.5)	65 (64.3)
Treatment for psychiatric disorder at follow-up	n = 39	n = 66	n = 105
None	20 (51.3)	35 (53.0)	55 (52.4)
GP only	7 (17.9)	9 (13.6)	16 (15.2)
Psychiatric services	12 (30.8)	22 (33.3)	34 (32.3)
Psychiatric disorder at follow-up	25 (65.8); n = 38	37 (54.4); n = 68	62 (58.5); n = 106
Repetition of DSH during follow-up year	12 (29.3)	23 (33.3)	35 (31.8)

third of these patients had suicidal ideas at this point (of whom 39.3% expressed these to the GP). For those patients who were being treated solely by their GP, the rate of antidepressant prescribing was high (68.6%), and with 83% of these prescriptions being for SSRIs and the newer antidepressants, it appeared that the GPs were taking the more prudent approach of prescribing drugs that are believed to

be safer in overdose. Over half of the patients already receiving or newly prescribed psychotropic medication at the GP consultation before DSH used this in overdose.

Following DSH, two-thirds of patients consulted their GP within a month, with over half discussing their emotional problems and the factors that may have contributed to DSH. Over two-thirds of patients described this first consultation

as helpful and nearly two-thirds reported that the consultations during the follow-up period had been helpful.

At the time of follow-up approximately one year later, over half of the patients in this study were still suffering from a psychiatric disorder and a third reported a further episode of DSH during the follow-up period. A third remained in contact with the specialist psychiatric services and a sixth were receiving psychiatric treatment from their GP. Thus, these patients had not only considerable continuing psychiatric problems but also a tendency to repeat DSH and to lose contact with mental health services.

Strengths and limitations of this study

The strengths of this study lie in its detailed examination of a representative and relatively large sample of DSH patients presenting to a general hospital. Its major weakness lies in the fact that it relied on patients' own reports of GP consultations and did not corroborate treatment details, compliance or patients' responses by reference to GPs or GP records. Although this represents a significant study limitation, reporting the patients' view of the nature and quality of GP contacts can provide a valuable user perspective on primary care services.

A relatively high threshold for the dosage of tricyclic antidepressants was taken to be therapeutic (equivalent to 150 mg of amitriptyline). This value was used on the recommendation of a clinical psychopharmacologist and it is recognised that in primary care a lower dose may be therapeutic.¹⁶ It is of note that 44.3% of the depressed patients in the study were rated as being in the severely depressed range, suggesting the need for vigorous treatment.

Relationship to existing literature

Other UK studies have reported similar rates of GP consultation by patients in the month and week prior to DSH (62.5% and 36.1%, respectively;² 56% and 32%³). Two UK studies found an increased frequency of GP contacts prior to DSH.^{17,18} However, one of these studies found this effect was owing to large increases in contact by a few patients and that the increase in numbers of patients consulting occurred several months prior to DSH.¹⁸ Two European studies have reported that between 47% and 59% of those who had last consulted their GP within a month of DSH did so for psychological reasons,^{19,20} but that only a minority of patients said they felt suicidal at that time and fewer still reported this fact to their GP.¹⁹ These findings and those of the current study would appear to limit the feasibility of GPs intervening shortly prior to DSH to prevent patients from self-harming. It is difficult for GPs to identify which patients are at high risk of suicidal behaviour. A Dutch study of the final GP contact before DSH found that GPs recognised only 31% of these patients to be at high risk.²¹

A study of DSH patients carried out in Oxford 25 years prior to this study found that a slightly greater proportion of patients who were prescribed psychotropics within three months of an episode of DSH (75%) used them in overdose,² while a Danish study reported that 43% of patients took newly prescribed medication for the parasuicide.²⁰

As far as preventing repetition of DSH in primary care, it is disappointing that a GP intervention consisting of a letter

from the GP inviting the patient to consult and guidelines for the GP on the management of DSH failed to prevent repetition of DSH.²² General practitioners need a more intensive intervention to offer DSH patients, but preventing repetition is very difficult given the unpredictable future adverse circumstances of this complex patient group.²³

Clinical implications and further research

The scope at the final consultation prior to DSH for the GP to intervene and prevent DSH is limited. However, potentially the GP has a valuable long-term role in helping this challenging group of patients, given the persistent nature of many psychiatric disorders and the high rate of repetition of DSH. GPs can often provide patients with long-term continuity of care, and in many instances they also have knowledge of the patient's family background, as well as of life events and physical ill health. They can offer a broad, holistic approach to patient care and may be able to discuss patients' emotional problems at an early stage, long before a suicidal crisis. Further research is needed on developing effective GP interventions for DSH patients.

References

1. Michel K. Suicide prevention and primary care. In: Hawton K, van Heeringen K (eds). *Suicide and attempted suicide*. Chichester: John Wiley, 2000: 661-674.
2. Hawton K, Blackstock E. General practice aspects of self-poisoning and self-injury. *Psychol Med* 1976; **6**: 571-575.
3. Petrie K. Recent general practice contacts of hospitalised suicide attempters. *NZ Med J* 1989; **102**: 130-131.
4. Suominen K, Henriksson M, Suokas J, et al. Mental disorders and comorbidity in attempted suicide. *Acta Psychiatr Scand* 1996; **94**: 234-240.
5. Haw C, Hawton K, Houston K, Townsend E. Psychiatric and personality disorders in deliberate self-harm patients. *Br J Psychiatry* 2001; **178**: 48-54.
6. Rutz W, Walinder J, Pihlgren H, et al. Lessons from the Gotland study on depression, suicide and education: effects, shortcomings and challenges. *Int J Methods Psych Research* 1996; **6**: S9-S14.
7. Kapur N, House A, Creed F, et al. Management of deliberate self poisoning in adults in four teaching hospitals: descriptive study. *BMJ* 1998; **316**: 831-832.
8. Crawford M, Wessely S. The management of patients following deliberate self harm: what happens to those discharged from hospital to GP care? *Prim Care Psych* 2000; **6**: 61-65.
9. Platt S, Bille-Brahe U, Kerkhof A, et al. Parasuicide in Europe: the WHO/EURO multicentre study on parasuicide. I. Introduction and preliminary analysis for 1989. *Acta Psychiatr Scand* 1992; **85**: 97-104.
10. Kerkhof A, Bernasco W, Bille-Brahe U, et al. *WHO/EU Multicentre Study on Parasuicide: European Parasuicide Study Interview Schedule (EPSIS)*. Leiden: Department of Clinical, Health and Personality Psychology, Leiden University, 1989.
11. WHO. *The ICD-10 Classification of Mental and Behavioural Disorders; Diagnostic Criteria for Research*. Geneva: World Health Organization, 1993.
12. Hawton K, Simkin S, Malmberg A, et al. *Suicide and stress in farmers*. London: The Stationery Office, 1998.
13. Tyrer P, Alexander J, Ferguson B. Personality Assessment Schedule (PAS). In: Tyrer P (ed). *Personality disorder: diagnosis, management and course*. London: Butterworth/Wright, 1988.
14. British Medical Association and Royal Pharmaceutical Society of Great Britain. *British National Formulary Number 38*. Wallingford: BMJ Books, Pharmaceutical Press, 1999: 179-189.
15. SPSS Inc. *SPSS Base 9.0 Users Guide*. New Jersey: Prentice Hall, 1999.
16. Furukawa T, McGuire H, Barbui C. Meta-analysis of effects and side effects of low dosage tricyclic antidepressants in depression: systematic review. *BMJ* 2002; **325**: 991-995.
17. Crockett A. Patterns of consultation and parasuicide. *BMJ* 1987; **295**: 476-478.
18. Gorman D, Masterton G. General practice consultation patterns

before and after intentional overdose: a matched control study. *Br J Gen Pract* 1990; **40**: 102-105.

19. Michel K, Runeson B, Valach L, Wasserman D. Contacts of suicide attempters with GPs prior to the event: a comparison between Stockholm and Bern. *Acta Psychiatr Scand* 1997; **95**: 94-99.
20. Stenager E, Jensen K. Attempted suicide and contact with the primary health authorities. *Acta Psychiatr Scand* 1994; **90**: 109-113.
21. Diekstra R, van Egmond M. Suicide and attempted suicide in general practice, 1979-1986. *Acta Psychiatr Scand* 1989; **79**: 268-275.
22. Bennewith O, Stocks N, Gunnell D, *et al*. General practice based intervention to prevent repeat episodes of deliberate self harm: cluster randomised controlled trial. *BMJ* 2002; **324**: 1254-1257.
23. Mitchell A. General practice based interventions to prevent repeat episodes of deliberate self harm. GPs have to manage this problem. *BMJ* 2002; **325**: 281.

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