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General Practitioners and Young Suicides
A Preventive Role for Primary Care

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Background. The suicide rate in young men, but not young women, is rising. One possible route to suicide prevention is through general practice but recent evidence suggests that young suicides are not likely to attend GP surgeries prior to death.

Method. We carried out a retrospective examination of general practice contacts by a 2-year sample of suicides under 35 years of age in the 12 health districts of Greater Manchester. In the 61 young suicides who were known to attend a GP in the three months before death, we recorded (a) the number of consultations each week in the three months before suicide; (b) sex differences in rates of and reasons for consultation; (c) frequency of recorded risk assessment at the last GP visit before suicide.

Results. The number of GP visits increased significantly before death. A monthly increase was more evident in males, but the increase in the week before death was more marked in females. There was no sex difference in the rate of GP visits before suicide; both sexes were most likely to attend for psychological reasons. Significant suicide risk had been noted at none of the final GP visits.

Conclusions. There remains a potential role for GPs in preventing suicides by young people of both sexes. The recent increase in suicide by young males does not appear to be related to a lower rate of GP attendance before death. Future training of GPs in this area should focus on risk assessment.

In the last 15 years there has been a large rise in the number of suicides by young men but not young women in the UK (Charlton *et al*, 1992; Hawton, 1992; Office of Population Censuses and Surveys, 1994). The rise is unexplained, although possible causes include an increase in risk factors such as unemployment, divorce, and substance misuse; the increased use of more lethal methods of self-harm such as self-poisoning with car exhaust fumes; and a lack of contact with services that might prevent suicide, such as general practice.

This last possibility represents an important challenge to suicide prevention at a time when a 15% reduction in the national suicide rate is a public health priority (Department of Health, 1992). Until the recent increase in young male suicides, it appeared that contact with doctors prior to suicide was common. In one influential study, around 60% of suicides of all ages were found to have visited their general practitioner (GP) in the month before death, and many had admitted to suicidal thoughts during their visit (Barraclough *et al*, 1974). Furthermore, training GPs on the Swedish island of Gotland to identify and treat depression was followed by a fall in the local suicide rate (Rutz *et al*, 1989), although the reduction was not sustained (Rutz *et al*, 1992) and the fluctuations in actual suicide numbers were small enough to have been the result of random variation.

A more recent study, however, reported that among young people contact with general practice before suicide is infrequent (Vassilas & Morgan, 1993). Only 20% of suicides under 35 were found to have consulted a GP in the four weeks before death, a figure no higher than that of a non-suicidal control group. This finding has cast doubt on the potential role for GPs in preventing suicide by young men, and therefore in lowering the suicidal rate in the population as a whole.

The present study has three aims. First, it re-examines GP attendance by young suicides for evidence of increasing frequency of visits prior to death. Second, it attempts to relate the gender difference in rates of suicide by young people to their contact with GPs, testing the hypotheses that young men are less likely than young women to

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consult a GP before death, and that their consultations are less likely to be for psychological reasons. Third, it examines the GP records of young suicides to evaluate risk assessment and the treatment of depression.

Method

Subjects

Information was collected on all suicides and probable suicides of residents of Greater Manchester under 35 years of age whose deaths occurred during the years 1991–2. During these years Greater Manchester (population approximately 2.5 million) was served by 12 District Health Authorities (DHAs) and ten Family Health Service Authorities (FHSAs). In each DHA the records of deaths of district residents during 1991 and 1992 were examined and death notifications on all individuals dying by suicide or receiving an open verdict at coroner's inquest were extracted. Those who were under 35 at the time of death became the subjects of the study, and their general practice records were sought from the district FHSA. In cases where no GP could be identified in the same district, and in one case of no known address, all ten FHSAs were asked if the person had been registered in their district. Data collection was carried out during 1994; the years 1991–2 were selected because older GP records on deceased individuals are often destroyed while mortality data on later years were likely to be incomplete at the time of the study.

Information recorded

The sex of each subject, and the timing of any GP attendance in the three months before death were noted. For those who had seen a GP in the three months before death, further details of their final visit were extracted from the GP notes. Specifically, these details were: (a) the principal reason for the visit – whether psychological (e.g. depression, worries, prescription of psychotropic drugs), physical, or both; (b) whether suicide risk was noted; (c) in cases diagnosed as depressed, whether an antidepressant was prescribed according to doses recommended by the *British National Formulary*. All GP notes were examined by two of the authors; disagreements in interpreting the notes were rare and resolved in a meeting of authors (LA, TA and MW).

Results

There were 167 suicides by people under 35 living in Greater Manchester during 1991–2. In 20 cases no GP could be identified. Twenty-three sets of GP notes were missing, leaving the notes on 124 subjects (84% of existing notes) available to the study. Of these, 61 had seen their GP in the three months before death; this represents 42% of the sample ($n=144$), excluding those whose notes were missing but including those who appeared to have no GP. Thirty-nine (27%) had seen their GP in the four weeks before death. These 61 subjects made a total of 165 GP visits in their final three months, a median of two visits (range 1–14) per case; most of the analyses below were based on these cases.

Timing of GP visits before death

Table 1 shows the timing of the 165 visits made during the three months before death. The number of visits increased each month and the difference between monthly totals was statistically significant ($\chi^2=7.93$, d.f. $=2$, $P=0.02$). There was also an overall increase in the number of visits per week towards the time of death, and the difference between weekly totals was significant ($\chi^2=21.97$, d.f. $=12$, $P=0.04$). The increase was most marked in the week before death when 22 subjects (15% of the total sample) made a total of 24 GP visits, almost twice the mean weekly number of 12.7 (observed: expected ratio $=1.9$); this final week increase was confirmed by comparison with the total for the previous 12 weeks ($\chi^2=10.92$, d.f. $=1$, $P=0.001$).

This increase in consultations was not the result of frequent attendance by a small number of people. Forty-nine subjects (80.3%) attended three times or less in the 13-week period. Only three subjects attended more than seven times. These "high-frequency attenders", who made 9, 10 and 14 GP visits, did not appear to attend more often immediately prior to death.

Sex differences

Male suicides were no less likely than females to consult a GP in the one month or three months before suicide. Of the total sample of 144 suicides, 115 (80%) were men and 29 (20%) were women. Forty-eight men (42%) and 13 women (45%) had made a GP visit in the three months before death ($\chi^2=0.05$, d.f. $=1$, $P=0.82$); 31 (27%) men and 8 women (28%) had made a GP visit in the month before death ($\chi^2=0.004$, d.f. $=1$, $P=0.95$).

Table 1 shows that the monthly pattern of GP visits by both sexes followed that of the total sample, though in women the numbers were low and the difference was not statistically significant.

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Table 1
Number of GP visits made by 61 young suicides in the three months before death

No. of suicides	Weeks 1–4	Weeks 5–8	Weeks 9–13	Significance of χ^2
Both sexes	64	54	47	0.02
Men	51	45	38	0.04
Women	13	9	9	0.37

However, when consultations in the final week before death were compared to the total in the previous 12 weeks in both sexes, the increase in visits by females was more marked. Sixteen of 134 (12%) visits by males were made during the week before death ($\chi^2 = 3.4$, d.f. = 1, $P = 0.07$); 8 of 31 (25%) visits by women were made during the final week ($\chi^2 = 14.37$, d.f. = 1, $P = 0.0002$). The number of GP visits in the week before suicide was increased 1.6-fold in men and 3.4-fold in women, compared to mean weekly totals for the three months under study. The sex difference in attendance in the final week before death was not quite significant ($\chi^2 = 3.32$, d.f. = 1, $P = 0.07$).

Thirty-nine of the 61 subjects (64%) who visited a GP were judged to have done so for psychological reasons, with or without a physical complaint. Few details were recorded in the majority of cases but symptoms of emotional disturbance were noted in 20 cases and psychotropic drugs were prescribed but no other details written in 17 cases. The remaining two subjects received sickness certificates because of mental illness.

There was no significant sex difference in reason for attendance: psychological reasons were noted in 31 men (65%) and eight women (62%) ($\chi^2 = 0.01$, d.f. = 1, $P = 0.92$). However, women who attended for psychological reasons were significantly more likely to receive psychotropic drugs (87% *v.* 42%) ($\chi^2 = 5.28$, d.f. = 1, $P = 0.02$). The most commonly prescribed psychotropic drugs were benzodiazepines.

Assessment of risk

Of the 61 subjects who attended a GP before suicide, suicide risk was commented on in only two cases at the final appointment, and in both these cases it was noted to be insignificant.

Treatment of depression

There was little evidence that depression, once identified, was inappropriately treated, although numbers were small. Depression was recorded in nine (15%) cases; in seven, antidepressants were prescribed in adequate dosage, i.e. 125 mg of standard tricyclic drugs or the recommended dose of SSRIs.

Discussion

Several findings in this study indicate a continuing and important potential role for GPs in the prevention of suicides by young people of both sexes. There was a pattern of increasing GP attendance during the three months before death; this was more significant in men although an increase in the week before death was more evident in women. Young men were no less likely than women to attend a GP before suicide, and the majority of final GP visits in both sexes were for psychological reasons. There was, therefore, no evidence that the increasing sex difference in suicide rates in young people can be explained by lower rate of GP consultation by men, or a greater reluctance in men to present with psychological problems.

There was a striking lack of evidence of risk assessment: in no case was significant risk recorded at the last appointment before death. However, it cannot be concluded that GPs do not in general assess suicide risk adequately – retrospective case-note studies are limited by what is written down, and the number of those who are prevented from committing suicide is unknown. In this study the definition of psychological reason for attendance was broad, and some of these visits may have given no indication of suicide risk. Alternatively, suicide risk may have been estimated but not recorded or found to be insignificant at the time.

Nevertheless, the results suggest that some suicides by young men and women could be prevented by routine assessment of suicide risk by GPs in all cases in which it might be significant, including any visit for broadly psychological reasons. Training should, therefore focus on recognition and assessment of risk.

But how large an impact on the suicide rate in this age group could be achieved through general practice? To reduce the number of young suicides by 15%, in accordance with the *Health of the Nation* target, 22 of the 144 suicides in this study would have to be prevented. This would mean for example, preventing all suicides by people who consulted a GP in the final week before death. Even if the entire 'excess' among the 22 GP attenders in the final week before death (based on the observed: expected ratio of 1.9 calculated above) could be prevented from committing suicide, this would reduce suicides in this group by only 7.2%.

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Consulting a GP before suicide is more common in people over 35 (Vassilas & Morgan, 1993), and the training of GPs to assess risk is likely to have most impact on suicide in this age group. To prevent younger suicides, such training would have to be available also to other likely service contacts, such as casualty staff, community alcohol and drugs services and probation officers. However, the findings of this study highlight the continuing potential contribution of general practice to suicide prevention in young people, including young men, the group in whom suicide risk has increased most rapidly.

Clinical implications

- Young suicides of both sexes increasingly attend GP surgeries before death, providing an opportunity for prevention.
- Although some suicides by young people could be prevented through primary care, the impact on the suicide rate is likely to be small.
- Assessment of suicidal ideation and intent should be carried out routinely when patients present with psychological problems in general practice.

Limitations

- As a retrospective casenote review, it relies entirely on what was written down at consultation.
- The actual suicide risk at the time of consultation is unknown.
- It does not assess the effectiveness of GPs in preventing suicide.

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