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Suicide in doctors A psychological autopsy study

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Abstract

Objectives: Doctors are at higher risk of suicide than many other occupational groups. This study was conducted to investigate factors associated with suicide in doctors. **Method:** Psychological autopsy study of 38 working doctors who died by suicide in England and Wales between January 1991 and December 1993. **Results:** Psychiatric illness was present in 25 of the doctors. Depressive illness and drug or alcohol abuse were the most common diagnoses. Twenty-five doctors had significant problems related to

work, 14 had relationship problems and 10 had financial problems. Multiple and interrelated problems were often present. The most common method of suicide was self-poisoning, often with drugs taken from work. **Conclusion:** Prevention of suicide in doctors requires a range of strategies, including improved management of psychiatric disorder, measures to reduce occupational stress and restriction of access to means of suicide when doctors are depressed.
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Keywords: Depressive illness; Doctors; Psychological autopsy; Suicide

Introduction

Doctors, especially females, have a relatively high risk of suicide [1–3]. The reasons are unclear, although availability of methods [4] and occupational stress [5] have been implicated. We have used the psychological autopsy approach [6,7] to conduct a descriptive study of doctors who died by suicide, focussing on those who were working at or shortly before the time of death.

Method

Subjects

The Office for National Statistics (ONS) notified us of all individuals in England and Wales, who died between January 1991 and December 1993, received a coroner's verdict of suicide or an open verdict ("undetermined cause") and were described as medical practitioners on their death certificates. For open verdicts, all available information was reviewed,

and only those where the likelihood of suicide was judged to be moderate or high were included in the study.

Sources of information

Elsewhere, we have described in detail the psychological autopsy approach to investigating suicides [7], including in high-risk occupational groups [8,9]. We used information from the following:

Death certificates,
Inquest records,
General practitioner (GP) clinical notes and responses to a questionnaire about medical history and healthcare contacts and
Psychiatric case notes.

For the doctors who were working at or shortly before the time of death, we asked the GP or coroner to identify a suitable relative or friend who we could approach directly or to pass on a letter describing the study and requesting an interview.

Those who agreed to participate were interviewed by A.M. or S.S. using a semistructured schedule regarding each subject's:

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Circumstances of death, personal and family history, social circumstances and problems in the year before death,

Mental state based on ICD-10 research criteria [8,10] and Personality, using the Personality Assessment Schedule (PAS) [11], adapted by the original authors for ICD-10.

Interviews took place between 9 and 53 (mean 33.5) months after the deaths. All potential informants were offered a Bereavement Information Pack giving information about bereavement following suicide and sources of support [12].

The research team used all the information for each case to reach consensus on the individual's problems and any psychiatric disorder. Problems were defined as factors causing difficulties or distress to the person in the year before death. The procedure is described in greater detail elsewhere [8].

Statistical analyses

The analyses were conducted using SPSS for Windows [13]. Where information was missing for a variable, the denominator is shown; otherwise, the findings are based on the whole sample of working doctors.

Results

Subjects

ONS notified us of 60 deaths. Four were excluded: two doctors practicing overseas who died while visiting the UK and two whose deaths (with open verdicts) appeared to have been accidents. Of the remaining 56 doctors, 44 had suicide verdicts (78.6%) and 12 had open verdicts (21.4%). The 38 of these who at the time of death were either working (32), very recently retired (1) or had the possibility of returning to medicine after a temporary absence (5) formed the study sample.

Sources of information

Coroners' Notes of Evidence were available in 28 (73.7%) cases, GP notes in 19 (50.0%) and psychiatric case notes in 8 of 20 (40.0%) with a history of psychiatric service contact. The remaining coroners and GPs refused to assist us, did not respond to repeated requests or had destroyed medical case notes after the death. Possible informants were identified and contacted for 29 subjects. Seventeen agreed to an interview (response rate 58.6%). In other cases, potential informants were either untraceable or permission was refused by the coroner or GP. For two doctors, we only had information from the death certificates.

Characteristics of the doctors

The cases included 28 men and 10 women. The age range was 23–71 years, 14 (43.8%) being under 35. Eighteen (47.4%) were married, 11 (28.9%) single and 4 (10.5%) divorced or separated (5 not known). Of 25 who worked for the NHS, 15 were consultants or principals in general practice and 10 were junior staff. Twelve worked in general practice. The remainder worked in private practice or other settings (2 not known). Three had qualified overseas.

Nature of suicides

Self-poisoning (28/38, 73.7%) was more common than self-injury (11/38, 28.9%). One doctor used both methods. The most common drugs used for self-poisoning were opiate analgesics (10 cases) and coproxamol (6 cases). Most of the drugs had been obtained through work (18/26, 69.2%). The three anaesthetists in the sample had used intravenous anaesthetic agents.

Most of the deaths appeared to have been planned. Two thirds of doctors had left a suicide note (21/32, 65.6%). A third were known to have made a verbal suicidal communication before their deaths (11/31, 35.5%), most within the week beforehand (7/11).

Psychiatric disorder

Most of the doctors for whom there was sufficient information to assess psychopathology were suffering from a psychiatric disorder at the time of their deaths (25/29, 86.2%; 17 definite, 8 probable), with depressive disorders the most common diagnoses (Table 1). Five doctors had comorbid psychiatric disorders, typically involving affective and alcohol abuse disorders. Eight had primary or secondary diagnoses of alcohol and/or drug abuse, all of several years' duration. Only two doctors had taken voluntary leave from work because of their mental health.

Only three doctors for whom adequate information was available fulfilled criteria for personality disorder (3/16, 18.8%).

Table 1
Primary psychiatric diagnoses (*n*=38)

Diagnosis (ICD-10 code)	Definite	Probable
Depressive disorder		
Moderate (F32.1)	5	1
Severe (F32.2 and F33.2)	2	0
Unspecified (F32.9 and F33.9)	4	6
Bipolar affective disorder (F31.3 and F31.5)	1	1
Alcohol dependence syndrome (F10.2 and F10.25)	2	0
Opioid abuse and dependence (F11.1 and F11.2)	2	0
Sedative dependence (F13.25)	1	0
Not known	9	
No psychiatric disorder	4	

GP and specialist psychiatric care

Of the doctors known to have a GP ($n=27$), 13 (48.1%) had seen this doctor within 3 months of their deaths, and most of these consultations (8/13, 61.5%) had been about emotional or psychiatric problems. Thirteen doctors were known to have seen a psychiatrist in the year before they died (13/25, 52.0%).

Fifteen doctors were receiving some form of treatment for psychiatric problems at the time they died either from a mental health team (9) or from their GP (6). Of the 21 doctors who were suffering from depressive disorder (F31, F32 or F33) as a primary or secondary diagnosis, 14 (66.7%) were receiving treatment either from their GP (6) or from an outpatient clinic (8), and most were being prescribed antidepressant medication (9 definite, 3 probable). Two doctors appeared to have been self-prescribing antidepressant medication. There were no indications that the remaining seven depressed doctors were receiving treatment for depression.

Twenty doctors (20/29, 69%) had a past psychiatric history and 9 (9/28, 32.1%) had made previous suicide attempts. Seven had received previous inpatient care, five of these for detoxification from drugs or alcohol.

Problems in the year before death

Most doctors had significant problems at work (Table 2). Seven were facing complaints, which in five cases appeared to have been a key factor leading to suicide. Most of these doctors were also facing other problems at work and at home. Other common occupational problems included feeling overloaded by the volume of work (8/25), working long hours (6/25) and feeling unable to cope with the responsibility of the job (6/25).

The most common pattern was for a doctor to have several problems in different areas of life, complicated by depression or drug and alcohol abuse.

Discussion

We know of only one previous psychological autopsy study of suicide in doctors worldwide, which was of a much smaller sample [14]. This approach to the study of suicide is associated with well-known methodological problems, including dealing with retrospective information subject to recall bias and the varying quality and quantity of information between subjects [7]. The most serious methodological problem in this descriptive study was the amount of missing information, largely resulting from the relatively low proportion of potential informants we could trace and interview.

The purpose of the study was to identify the characteristics of doctors dying by suicide. A control group would have helped identify specific risk factors. However, it would have been difficult to identify appropriate controls and recruitment among doctors would have been extremely problematic.

Not all the doctors in the original sample were working in mainstream NHS practice at the time of their deaths. Several had retired or sought careers in other settings, in some cases because of problems with their mental health or alcohol abuse. This has obvious implications for the interpretation of occupational mortality statistics and for planning prevention programmes. Some doctors at particular risk may be working in relatively isolated situations, such as private clinics or in locum posts, with few colleagues to notice if they are in difficulties. We have reported elsewhere a larger study of suicide risk according to speciality [3].

The doctors in this sample were similar in many ways to other people who die by suicide [15]. The majority had psychiatric disorders at the time of their deaths, and many had histories of previous psychiatric disorder and suicide attempts. Mental illness and alcohol and drug abuse were the most common factors in the pathway to suicide, often interacting with problems at home and at work. The pattern of diagnoses was similar to other studies, but with lower rates of psychotic illness and personality disorder, as would be expected in a professional group.

Doctors in general tend to minimise their own health problems, often fail to seek appropriate treatment [16], do not take time off work and have a poor understanding and distrust of occupational health services. The doctors in this sample reflected this pattern. They were less likely to have consulted their GPs shortly before death than people in other population-based studies of suicide [17], although the amount of missing data means that this result should be treated with caution. A surprisingly high proportion had received treatment for depression compared with subjects in other studies [18,19]. However, their probable ability to conceal the depth of their depression and suicidal ideation from others might explain why so few had been admitted to hospital or seen by their GPs before death.

The difficulty experienced in treating doctors with drug and alcohol problems is well documented [20]. Several doctors in our study had continued to practice despite severe

Table 2
Problems ("definite" and "probable") in the year before death ($n=35$; 3 no information)

	<i>n</i>	%
Occupational	25	71.4
Mental health (excluding alcohol and drugs)	22	62.9
Relationship	14	40.0
Financial	10	28.6
Family and friends	8	22.9
Alcohol	6	17.1
Physical health	4	11.4
Bereavement	4	11.4
Legal	3	8.6
Housing	3	8.6
Drugs	3	8.6
Other	3	8.6

problems with substance abuse. This highlights the need for continued supervision to protect doctors and their patients.

Most of the doctors in the sample had significant problems at work. The impact of complaints, overwork and burden of administration on some of the doctors we studied is of great concern. Initiatives to address some of these problems, including a reduction in working hours for junior hospital doctors and a British Medical Association sponsored help line, occurred after the study period. There is some evidence that levels of stress due to overwork among junior doctors have improved, but levels of depression and anxiety remain unacceptably high [16].

Conclusions

In conclusion, while acknowledging the methodological limitations of the study, we suggest that the following strategies might have helped prevent the suicides of some of the doctors in this study:

- Continued emphasis on the adequate treatment of depression in doctors who should be encouraged to take time off work and be admitted to hospital if appropriate.
- Improved mechanisms for identifying medical students and young doctors with mental health problems and supporting them through training.
- Extended supervision of doctors with drug and alcohol problems.
- Greater recognition of the stress involved in complaint procedures and improved support for doctors involved.
- Improved career guidance for doctors who wish to leave medicine.
- Limiting depressed doctors' access to dangerous medication.

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