Suicide: causes and prevention

Approximately 5000 individuals complete suicide in England and Wales every year, a rate of around 10 per 100 000 per year (Appleby et al, 2001). There are an additional 800 suicide deaths each year in Scotland which has an even higher suicide rate. Suicide is a major cause of premature mortality and is now the commonest cause of death in young men. The key questions are what causes suicide and what might be done to prevent it?

WHAT CAUSES SUICIDE?

The short answer is that we can not be certain. The aetiology of suicide is likely to be a complex balance of risk and protective factors, each of which may be acute or chronic (Maris, 2002).

The epidemiology of suicide could provide some clues (Kapur and Gask, 2003). In the last 20 years there has been a doubling in the suicide rate in young males, and in all groups men are at greater risk than women. Men are more likely to use violent methods such as hanging while women tend to poison themselves with antidepressants or analgesics. There has been a large decline in deaths by inhalation of car exhaust fumes since the early 1990s (with the introduction of catalytic converters), and a smaller decline in deaths from paracetamol poisoning (since legislation restricting pack sizes). However, the rate of death by hanging has doubled over the last two decades and this might partly reflect method substitution.

There are a number of established risk factors for suicide (*Table 1*) but perhaps the two most important are psychiatric disorder and previous self-harm. Psychiatric disorder increases the risk of suicide at least eleven-fold, with depressive illness being associated with the greatest increase in risk (Harris and Barraclough, 1997). Self-harm (self-poisoning or self-injury) remains one of the commonest reasons for presentation to the general hospital and also confers an increased risk. In the year after an episode of self-harm the rate of suicide is one hundred times greater than that in the general population. This is particularly important to emphasize since there is evidence that many patients who have self-harmed are still not taken seriously by hospital staff (National Collaborating Centre for Mental Health, 2004).

SUICIDE PREVENTION STRATEGIES

The *National Suicide Prevention Strategy for England* lists six goals to support a reduction in the death rate from suicide of at least 20% by 2010 (Department of Health, 2002). These include reducing risk in key high-risk groups (e.g. those with a history of mental disorder or self-harm) and promoting mental wellbeing in the wider population.

Reducing the availability and lethality of methods of suicide is another goal. Specific examples from the strategy include restricting the availability of commonly used analgesics and encouraging safer prescribing of toxic medication. Since a substantial proportion of self-poisoning suicides present to hospital before they die, improved medical management of overdose might also have the potential to reduce suicide rates (Gunnell et al, 2004).

Media representation has been shown to be an important influence on suicidal behaviour (for example, in the week following an episode of a hospital drama ('Casualty') which featured a paracetamol overdose, the number of episodes of paracetamol poisoning in the UK increased by one fifth (Hawton et al, 1999)). The strategy suggests that the media should follow guidelines to ensure the responsible reporting of suicide. Finally the strategy suggests increased research on the prevention of suicidal behaviour and improved monitoring of progress towards achieving the targets for the reduction in suicide rates.

TABLE 1. Risk factors for suicide

Older age
Male
Family history of suicide
Reported childhood adversity
Previous history of self-harm
Psychiatric disorder
Alcohol or drug misuse
Psychological factors (e.g.impulsivity, poor coping skills, hopelessness)
Unemployment
Poor physical health
Social isolation

National strategies are undoubtedly important, but what might individual medical practitioners do to reduce the risk of suicide?

ASSESSING SUICIDE RISK

Risk assessment, i.e. assessing the risk of future suicidal behaviour, is an important clinical skill, and not just for psychiatric specialists. However, because the outcomes we are interested in are rare and risk is not easy to quantify, accurately predicting suicide is probably not a realistic goal. It has been suggested that risk assessment is probably more helpful as a tool to provide information about the current needs of the individual rather than as a tool to predict future behaviour (National Collaborating Centre for Mental Health, 2004). There are a number of practical guides to assessing risk (e.g. Cooper and Kapur, 2004) and it is probably helpful to focus on five areas when carrying out a risk assessment:

1. Interview skills (to enable the assessor to establish rapport, pick up verbal and non-verbal cues)
2. Clarifying current problems
3. Exploring suicide intent (e.g. wishes to be dead, suicidal plans, measures to avoid discovery)
4. Background factors (e.g. past suicide attempts, coping mechanisms)
5. Current psychiatric symptoms.

The issues of consent to treatment and use of the Mental Health Act 1983 are related to risk assessment and can be

extremely difficult. Often the clinician encounters an individual who sees no way out of his/her current difficulties, is ambivalent about future suicidal intent, and is hostile to the involvement of professionals. A full discussion of these issues is beyond the scope of this article but further guidance is available both from the published literature (National Collaborating Centre for Mental Health, 2004) and medical defence organizations.

There are some general points to bear in mind. If the individual has insufficient capacity to consent to the proposed treatment, and the benefits of intervention outweigh the consequences of not intervening, treatment may be given under common law. Capacity to consent to or refuse treatment refers to the ability of the individual to understand the proposed treatment (including its benefits, risks, alternatives and the consequences of not receiving it), believe the information he/she is given, retain it and make a free choice.

All health professionals who have contact with suicidal individuals should be able to assess mental capacity. In practice, there is often sufficient doubt about the capacity of many patients who refuse intervention following a suicidal act to allow potentially life-saving treatment to be given under common law. The Mental Health Act can only be used where there is evidence of mental disorder.

TREATING DEPRESSION

Suicidal thoughts often accompany serious depressive illness, and most clinicians would advocate treatment for depression (either pharmacological or psychological) as one strategy for reducing the risk of suicide. However, because suicide is a comparatively rare event this is difficult to demonstrate on a population level in randomized trials. Meta-analyses show no difference in suicide rates between those treated with antidepressants and those treated with placebo, but study samples are not always representative of typical clinical populations (Gunnell and Ashby, 2004).

Before and after studies have shown reductions in suicide rates following training for GPs in the assessment and treatment of suicidal patients (Rutz et al, 1992). Ecological studies have shown associations between increased rates of antidepressant prescribing and decreases in suicide rates. However, such studies are unable to demonstrate that the observed associations are causal and the findings have not always been consistent (Gunnell and Ashby, 2004).

The situation has been further complicated by assertions that one particular class of antidepressant (the selective serotonin-reuptake inhibitors; SSRIs) actually increases the risk of suicide, especially in adolescents. There is uncertainty about the balance of risks and benefits for SSRIs, but doctors should not become overly reluctant to use antidepressant drugs generally. Appropriate treatment for depression probably still represents a very important strategy for reducing an individual's risk of suicide (Rihmer, 2001).

CONCLUSIONS

Suicide is a major public health problem in the UK and an important cause of premature mortality. Its aetiology is complex. Clearly suicide prevention is not just the responsibility of health professionals and suicide prevention strategies need to be comprehensive and involve a wide range of agencies. However, medical practitioners do have an extremely important role to play in the assessment and treatment of individuals who present with suicidal behaviour. Research in this area is difficult but future studies may help to inform specific treatment strategies. HM

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KEY POINTS

- Suicide is an important public health problem and a major cause of premature mortality.
- The aetiology of suicide is complex.
- The National Suicide Prevention Strategy for England lists a number of goals aimed at facilitating a 20% reduction in suicide rate by 2010.
- Assessing the risk of suicidal behaviour is an important clinical skill.
- The recognition and treatment of depression may help to reduce the risk of suicide.