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EDITORIAL

Health services and suicide prevention

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Suicide is a major problem across the world. Although rates in the UK are falling, many young people still lose their lives by suicide. Suicide has a disproportionate impact on society in terms of years of life lost. Yet, suicide is a complex behaviour with a complex aetiology. Sociological theories of suicidal behaviour suggest that society-wide intervention might be the best way to prevent suicide. In this context, do health services in general and mental health services in particular have anything to contribute to suicide prevention?

Mental illness and suicide

Psychological autopsy studies which involve interviews with informants (typically relatives of the deceased or clinicians) suggest that around 90% of individuals who die by suicide have some kind of mental disorder at the time of death (Cavanagh, Carson, Sharpe, & Lawrie, 2003). Cohort studies following up large groups of individuals over time confirm that most psychiatric diagnoses are associated with increased suicide risk (Harris & Barraclough, 1997; Hiroeh, Appleby, Mortensen, & Dunn, 2001).

Much of what we know about suicide and mental illness in the UK is based on the findings of the National Confidential Inquiry into Suicide and Homicide by People with Mental Illness (National Confidential Inquiry, 2006). The Inquiry involves detailed data collection from clinicians via questionnaires on those who have died within 12 months of contact with specialist mental health services. The most recent Inquiry report for England and Wales suggested some areas in which care might be improved as well as highlighting ways in which mental health services had contributed to suicide prevention.

Between 2000 and 2004 23,477 individuals died by suicide in England and Wales and 6397 (27%) of these had been in contact with mental health services in the year before death ("Inquiry cases"). Around half of these had contact with services in the week prior to death. As we might expect, Inquiry cases were a morbid group characterized by high levels of social isolation, self-harm and substance misuse. One in six died whilst psychiatric in-patients and a further one in five died within 3 months of discharge. Of the in-patient deaths, over a

quarter occurred after patients had left the ward without staff permission and over one fifth occurred in patients who were under close observation by ward staff. For the post discharge deaths, the first three weeks after discharge appeared to be the period of highest risk with 37% of all post-discharge deaths occurring within this time period. Suggestions for how services might reduce rates of suicide included measures to reduce absconding, improve observation protocols, and make wards safer. Although significant progress had been made in removing some potential ligature points (for example non-collapsible shower and curtain rails), patients used a variety of ligatures and ligature points and the commonest ligature points in the latest reporting period were hooks or handles. It was suggested that careful management of the transition from ward to community might help to prevent some post-discharge deaths.

The Inquiry found a number of areas in which mental health services may have contributed to suicide prevention. There was a 30% decline in the number of psychiatric in-patient suicide deaths between 1997 and 2004 (and a corresponding fall in rates). There were reductions in all methods, but deaths by hanging and strangulation on psychiatric wards fell by over 50%. The Inquiry had previously identified a number of clinical groups which services might regard as a priority for preventive efforts (in-patients, those who died within 3 months of discharge, those who were subject to enhanced aftercare, those who missed their last contact with services, those who were non-compliant with treatment). The biggest proportionate falls in the number of deaths were for individuals in multiple priority groups, perhaps suggesting that preventive efforts were being focussed successfully on those with the greatest clinical need. The Inquiry also explored Trusts' self-reported take up of previous Inquiry recommendations and found these to be good, although it was too early to investigate the impact of the recommendations on suicide rates.

Treatment of mental illness and suicide risk

From a clinical viewpoint the treatment of mental illness might be seen as one of the most useful strategies to reduce suicide risk. There is some evidence for the protective effects of lithium (Cipriani, Pretty, & Hawton, 2005) and clozapine (Meltzer et al., 2003) but what about antidepressants in general? The major problem with randomized trials in this area is that because suicide is a comparatively rare outcome enormous sample sizes are needed to show an effect. Meta-analyses have been inconclusive. It is also important to note that individuals who are recruited to randomized trials tend not to be typical of patient populations more generally – for example those with suicidal ideas are often excluded. Other types of study design, such as ecological studies (where researchers attempt to investigate the relationship between the prescription of antidepressants in a population and suicide rates) are difficult to interpret and have yielded conflicting results (Baldessarini et al., 2007). A large sophisticated analysis carried out in the US suggested that suicide rates were lowest in areas with the highest antidepressant prescription rates (Gibbons, Hur, Bhaumik, & Mann, 2005). However, a recent UK study found no such association (Morgan, Griffiths, & Majeed, 2008). A population-based study of older adults in Denmark between 1996 and 2000 found that only one in five of those who died by suicide were receiving antidepressants at the time of death (Erlangsen, Canudas-Romo, & Conwell, 2008). Individuals who were receiving antidepressants accounted for only 10% of the decline in suicide rates during the study period.

The relationship between antidepressant treatment and suicide rates is further complicated by the possibility that some antidepressants (for example SSRIs) may actually increase suicidal behaviour, especially in young people (Murray, Thompson, Santosh, &

Wong, 2005). British and Finnish data suggest that antidepressants might reduce the risk of suicide while increasing the risk of non-fatal suicidal behaviour in some individuals (Gunnell, Saperia, & Ashby, 2005; Tiihonen, Lonnqvist, Wahlbeck, Klaukka, Tanskanen, & Haukka, 2006). It has been suggested that falls in the prescription of antidepressants to young people have been associated with increases in the suicide rate in this group (Gibbons et al., 2007) but this has not been found in the UK (Wheeler, Gunnell, Metcalfe, Stephens, & Martin, 2008).

Self-harm and suicide

Self-harm refers to intentional self-poisoning or injury irrespective of the apparent purpose of the act. One clinical misconception may be that this is an attention seeking behaviour of limited seriousness with no important sequelae. In fact the risk of suicide in this group is between 30–50 times greater than the risk in the general population (Cooper et al., 2005; Owens, Horrocks, & House, 2002) and as many as one in ten may eventually die by suicide. Up to two thirds of young people who die by suicide may have a history of previous self-harm. Another misconception concerns the level of risk posed by self-cutting, often regarded as minimal in health care settings. In fact those who cut may have features indicative of high risk (Horrocks, Price, House, & Owens, 2003), tend to receive poor services (Horrocks et al., 2003; Kapur et al., 2008), and are more likely to repeat self-harm (Kapur et al., 2006) and die by suicide (Cooper et al., 2005) than those who poison themselves.

It has been argued that interventions for self-harm can never contribute to suicide prevention (Crawford, Thomas, Khan, & Kulinskaya, 2007), but the real problem may be that trials to date have been too small. Even a recent systematic review could have, at best, detected a 50% reduction in the risk of suicide (Crawford et al., 2007). It is unrealistic to expect treatments to have effects that are this big. However, as Owens et al. (2002) point out, if the rate of self-harm in the UK is 400 per 100,000 per year, and a conservative estimate of the incidence of suicide in the year after self-harm is 0.5%, then the suicide rate in the year after self-harm is 2 per 100,000 per year. If we assume a general population suicide rate of 10 per 100,000 per year then better treatments for self-harm do have the potential to reduce the overall rate of suicide by one fifth.

What interventions might work for self-harm? A variety of treatments have been evaluated but very few have led to clinically significant reductions in repetition. Systematic reviews have concluded that trials have been too small and have tended to recruit specific sub groups of individuals making the findings difficult to generalise (Hawton et al., 1999; National Collaborating Centre for Mental Health, 2004). However, there have been a number of trials in this area recently and the reviews are due to be updated. A number of interventions probably warrant further investigation in large clinical trials. These include problem solving and other cognitively based treatments, interpersonal therapy, and “emergency card” type interventions. Other treatments may be helpful for sub-groups of patients (for example, dialectical behaviour therapy for individuals who self-harm repeatedly, group therapy for adolescents). Very brief adjunctive interventions (such as the provision of crisis cards, telephone calls, or letter writing interventions – where individuals who are disengaged from services are regularly contacted by mail) seem like a hugely attractive option. However while they may be helpful in some cases (Carter, Clover, Whyte, Dawson, & D’Este, 2005) findings from trials have been inconsistent and further research is necessary before such interventions can be recommended for routine clinical use.

Conclusion

Broad based strategies are undoubtedly required to prevent suicide. Whilst population measures such as reducing access to lethal means of suicide and guidelines for media reporting of suicidal behaviour are likely to be effective, the two most important risk factors for suicide are mental illness and previous suicidal behaviour. Health services, particularly mental health services, have a vital role to play in the prevention of suicide.

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