Are psychiatric wards becoming safer?

Recent increasing recognition of the global burden and extent of suicide has led to worldwide suicide prevention strategies, such as the *National Suicide Prevention Strategy for England* (Department of Health, 2002). This identified those in contact with mental health services as a priority group and evidence indicates that psychiatric inpatients are at particular risk (Qin and Nordentoft, 2005). Inpatients have been identified as a priority group by the National Confidential Inquiry (Appleby et al, 2006). Given the close proximity to services, they are clearly a group who are potentially amenable to intervention.

Falling rates of suicide in psychiatric inpatients

A prospective study of all patients admitted to NHS psychiatric care from 1997–2003 examined trends in inpatient suicide over time (Kapur et al, 2006). This was carried out as part of the National Confidential Inquiry and data collection is described in detail elsewhere (Appleby et al, 2006). Rates of suicide in inpatients were established using denominator data from Hospital Episode Statistics.

Results indicated that, between the first 2 and the last 2 years of the study, there was a 17% reduction in numbers of inpatient deaths from suicide: 39 fewer deaths occurred by suicide in 2003 than in 1997. This represents a fall of between 9% and 28%, depending on the denominator data used. Rates of inpatient suicide were higher for males than females but the fall was observed for both. It was most marked for younger patients; those aged 15–44 years. There were significant reductions in deaths by self-poisoning, carbon monoxide poisoning and jumping. Deaths by hanging decreased by over 16% but this decrease failed to reach statistical significance. There was a reduction in post-discharge suicides in absolute numbers but, as a result of a decrease in admissions over the period, the risk of post-discharge suicides may have increased by 10%.

This study is of particular interest as there is a lack of evidence regarding trends in inpatient suicide over time and this is the first study to examine rates. Moreover, this comes at an interesting time given recent changes to the provision of psychiatric care in the UK. There has been a decrease in availability of psychiatric beds which is not compensated for by the increase in forensic beds and supported housing (Priebe et al, 2005). This has led to an increasingly morbid patient population with a marked increase in formal admissions under the Mental Health Act 1983 (Hotopf et al, 2000), thus further increasing the risk as compulsory admissions have been shown to increase suicide risk (Powell et al, 2000). Given these changes, the decrease in inpatient suicide rates is even more encouraging and demonstrates the value of monitoring this in institutions. Unfortunately there is a lack of evidence on suicide rates in general hospitals and this is something which the Inquiry will investigate in the future.

Possible explanations

It is possible that these findings merely represent a mirroring of the decreasing suicide rates in the general population. Risk factors for suicide, however, have been shown to differ between the general population and psychiatric inpatients (Powell et al, 2000). When data from the National Confidential Inquiry are examined, rates of suicide in inquiry cases in the community have not decreased in a similar manner, indicating that there may be explanations for this trend which are more specific to psychiatric inpatients.

Another explanation for falling inpatient suicide rates could be a transfer of risk to the post-discharge period. This could be a consequence of the decrease in numbers of inpatient beds. A shorter duration of stay increases the risk of suicide (Qin and Nordentoft, 2005) and with increasing pressure on beds perhaps patients are being discharged earlier than is ideal. However, when this was examined using routinely collected data there was no evidence that lengths of stay were falling in most age groups. This clearly merits ongoing monitoring, with awareness of the importance of appropriate, prompt follow up on discharge from inpatient care.

Given Department of Health (2000) guidance concerning interventions to decrease inpatient suicide by hanging, it is encouraging to see a decrease in this, particularly given increasing base rates of hanging in the general population (Gunnell et al, 2005). However, the reduction in the rate of hanging was not as large as the reduction for some other methods. It is important to note that hanging as a method includes strangulation, and that only half of deaths by hanging involve full suspension (Bennewith et al, 2005). Moreover, there are a wide variety of ligatures (commonly belts, sheets, shoelaces and clothes) and ligature points (hooks/handles, doors, windows and parts of beds) used by patients (Appleby et al, 2006). Given that the guidance mentioned concerned solely the removal of non-collapsible curtain rails, the Inquiry has been collecting data on commonly used ligatures and ligature points to inform further preventative strategies regarding hanging and strangulation on inpatient wards.

Possible future directions

Clearly a balance needs to be struck between level of risk and necessary precautions to ensure safety, and the dignity and civil liberties of patients. The removal of all ligatures, including shoelaces, belts and cords in jackets and trousers and other items, such as batteries (which can be ingested) in alarm clocks or remote controls, need to be tackled sensitively. Moreover, ensuring the absence of all ligature points is highly resource and cost intensive.

Such difficulties are compounded by the lack of any model for predicting the majority of actual suicides without an unacceptable high false-positive rate (>99%) (Powell et al, 2000). Even in such a high-risk group there is, therefore, an inability to correctly identify a high proportion of patients who will die by suicide. This has led to the proposal that if it is impossible to remove ligature points, or barriers to observing high-risk patients, such wards should not be used for the admission of acutely ill patients (Appleby et al, 2001; Gunnell et al, 2005).

It is also possible that recent guidance and policy initiatives have led to an increasing awareness of the high risk of suicide in inpatients, and therefore more general improvements in ward safety. The impact of service level factors is contentious, with some authors failing to demonstrate an association with suicide rates (Desai et al, 2005) but others indicating that aspects of clinical care do influence risk of suicide (King et al, 2001). The Inquiry has therefore been conducting a study evaluating the uptake of recommendations outlined in *Safety First* (Appleby et al, 2001) and incorporated into the *National Suicide Prevention Strategy for England* (Department of Health 2002), and is aiming to evaluate the uptake of specific recommendations with changes in suicide rates to try and identify key service level features that are the most clinically effective (Swinson et al, 2007).

The past few years have seen a demonstrably improved safety culture in the NHS with increasing awareness of the need to assess and monitor risk with a resultant focus on relevant aspects of the ward environment and patient care. The major challenge for mental health services, as indicated by the Royal College of Psychiatrists (2006), is to maintain this improvement in quality and safety of wards and services for patients, particularly when there are reports of funding for mental health being cut in some trusts to relieve funding crises elsewhere in the NHS (Sainsbury Centre for Mental Health, 2006). BJHM

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KEY POINTS

- There has been a substantial decrease in suicide rates in psychiatric inpatients since 1997, despite an increasingly morbid inpatient population and an increase in formal admissions.
- Deaths by self poisoning, carbon monoxide poisoning and jumping have significantly decreased. Rates of hanging have also decreased, but this fall has not reached statistical significance.
- There are concerns that the risk of post-discharge suicides may be increasing, and this requires careful monitoring.
- The National Confidential Inquiry is evaluating the uptake of recommendations to try and identify key service level features that are clinically effective in reducing risk of suicide.

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If you would like to comment on this or any of the articles in *British Journal of Hospital Medicine*, or any issues which are relevant to our readers, please write in no more than 250 words to:

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