Correspondence

EDITED BY LOUISE HOWARD

Predicting violence

Sir: Although the authors of the PRiSM Psychosis Study (November 1998) acknowledge that its quasi-experimental design militates against statistical generalisability, useful lessons can be learnt from its conclusions. One of these lessons is related to predictions about violent acts committed by people with severe mental illness. Public concern about this issue is rightly acknowledged in the third paper of the series (Johnson *et al*, 1998).

The quantitative characteristics of the performance of models that predict some rarely occurring outcomes are often poor. It could then be argued that the intensity of professional involvement with some patients is largely influenced by subjective predictions of such outcomes. In this context, we often act more vigorously when we are worried about a patient committing serious violence.

I will assume that this type of professional behaviour was reflected in the study. However, my assumption is questionable since the study conditions may have affected such behaviour.

The category 'currently viewed by staff as at risk of committing violent acts' (here, 'staff views') was used in the study, showing a frequency of 23 (21% of valid cases) in Nunhead, 9 (6%) in Norwood, and 32 (13%) overall. The frequency of the category 'episode of violent/threatening behaviour' was 18 (17%) in Nunhead, 6 (4%) in Norwood, and 24 (9%, 95% CI 6–13%) overall.

Assuming that 'staff views' entered the initial logistic regression model (not clarified in the paper), it was not included in its final model. This would indicate that this category is not helpful in prediction, and that predictions based on it would result in a high false positive rate.

Many of us envisage that recent Government initiatives and comments made about us by politicians will increase the shift towards professionals acting even more defensively, with a resulting further increase in false positive cases who will be more 'aggressively' treated. This professional attitude may complicate matters, since it has been suggested that intensive treatment increases the probability of some patients experiencing negative social outcomes.

To facilitate discussions on this topic, it would be helpful if the authors gave more details on the category 'currently viewed by staff as at risk of committing violent acts', such as its sensitivity, specificity, etc.

Johnson, S., Leese, M., Brooks, L., *et al* (1998) Frequency and predictors of adverse events. PRiSM Psychosis Study 3. *British Journal of Psychiatry*, **173**, 376–384.

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Homicide and failure of community care

Sir: Burns & Priebe (1999) say that "It has little impact to point out that the homicide rate by people with mental illness has been stubbornly unaffected by community care policies" and list, among the serious shortcomings of English services, "the excessive preoccupation with risk". Of interest is whether the rate has fallen. If not, despite vast expense and the remodelling of the entire psychiatric system, it may appear to offer neither value for money nor protection for the public. The relatively stable homicide rate may represent a balance between de-institutionalisation and the management of risk to others in the community, for instance by the use of compulsory detention.

Taylor & Gunn (1999) found that up to 11% of unlawful killings in Greater London and the Home Counties were by people with schizophrenia and other psychoses. If the prevalence of schizophrenia and other psychoses is taken as 0.25%, the risk of homicide is thus approximately 40 times that in the general population. If there are 40 deaths associated with 125 000 people with psychoses in the UK, using the comparison of 25 million drivers being associated with 3500–4000 road deaths, the rate of homicide is twice that of road deaths. Lower rates of psychosis would produce a relatively higher risk. If the figure of 300 deaths from dangerous, including drunken, drivers is used, then there are at least 20 times as many homicides per person with psychoses as road deaths per vehicle user through dangerous driving. Even if we decide what is an acceptable level of risk to others, society's attitudes to the numbers of road deaths and homicides by the mentally ill emphasises that there is a social construction to the concept of risk which figures alone will not dispel.

It will be fascinating to see whether a range of secure services, in-patient beds, 24-hour nursed care and good-quality community provision, including assertive outreach, will make an impact in respect of risk to others, including homicide, but we do not yet know (in east London we do not have the necessary services). As such things are not a research 'experiment' we may never know.

Burns, T. & Priebe, S. (1999) Mental health care failure in England. Myth and reality. *British Journal of Psychiatry*, **174**, 191–192.

Taylor, P. J. & Gunn, J. (1999) Homicides by people with mental illness: myth and reality. *British Journal of Psychiatry*, **174**, 9–14.

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Suicide in farmers in India

Sir: Farmers' high rates of suicide in India in mid-1998, together with the paper by Malmberg *et al* (1999), demonstrate that suicide in farmers is a public health problem having no borders. Some of the risk factors and methods of suicide (Hawton *et al*, 1998) among farmers in North America

or England and Wales cannot be generalised to other parts of the world such as India. India is the second most populous country in the world and approximately 80% of the population are farmers and poorly educated. Unfortunately, even after more than 50 years of Indian independence, farmers, who are perceived to be the backbone of the nation, are neglected in many ways. Because of this, last year, in the northern part of Karnataka State (south India), many districts like Bidar, Gulbarga, Raichur and Bijapur experienced not less than 100 suicides of farmers within three months (March–May) ("Another farmer commits suicide", "Money-lenders blamed for farmers' suicide", "Bellary farmers end life over crop loss", *Deccan Herald*, 15 March, 3 April and 11 May 1998). Today, the suicide rate in farmers in India is still not known. Malmberg *et al* discussed the lacunae in understanding of farmers' suicide problems and this is an area for more research.

In contrast to the Hawton *et al* study, farmers' suicides in India may be associated with different problems such as harassment by money-lenders, inability to repay debts following crop loss, inability to get medical treatment for the family, etc.

In developing countries like India globalisation and industrialisation are prominent, with multi-national companies competing in the industrial and agricultural sectors. This adds, directly or indirectly, to numerous problems such as supply of low-quality seeds to farmers, sales of sub-standard alcoholic drinks, sub-standard pesticide production and frequent power cuts and irregular power supplies. The lack of positive and cooperative support from banks and too many restrictions make problems worse. Unless there is a supportive government policy for safeguarding farmers during inclement weather or market fluctuations, and until banking systems are put in order, the plight of farmers will remain the same.

Furthermore, suicide in farmers could be controlled by effective and efficient community care, which has been a cornerstone of policy for mental health services for the past half-century (Tyrer, 1998). Policy concerns and research efforts should focus on reducing suicide in farmers.

Hawton, K., Fagg, J., Simkin, S., et al (1998) Methods used for suicide by farmers in England and Wales. The contribution of availability and its relevance to prevention. *British Journal of Psychiatry*, **173**, 320–324.

Malmberg, A., Simkin, S. & Hawton, K. (1999) Suicide in farmers. *British Journal of Psychiatry*, **175**, 103–105.

Tyrer, P. (1998) Whither community care? *British Journal of Psychiatry*, **173**, 359–360.

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Fever and acute brief psychosis in developing countries

Sir: The study by Collins *et al* (1999) represents a significant advance in addressing the aetiological factors underlying acute brief psychosis, a common problem in developing countries but with very little systematic data available. Although the authors have only considered the aetiological significance of viral infections such as influenza and herpes simplex, the real difference between developing and developed countries lies in the prevalence of bacterial and protozoal infections. It appears that the authors have overlooked the significance of these commonly occurring infections and the drugs used to treat these in the aetiology of acute brief psychosis.

Two common causes of fever in developing countries are malaria and typhoid fever. These infections, as well as their treatments, may have direct aetiological implications for acute brief psychosis. Apart from the indirect effects of malaria and its complications on the activation of psychotic symptoms, cerebral malaria may have similar direct effect. Cerebral malaria is not uncommon in these settings. It has been reported in 20–40% of patients admitted with fever and altered consciousness (Durrani *et al*, 1997). Psychosis is also considered one of the side-effects of the most commonly employed treatment for malaria, chloroquine.

A toxic confusional state characterised by disorientation, delirium and restlessness, is characteristic of late-stage typhoid but, occasionally, these and other neuropsychiatric features may dominate the clinical picture from an early stage (Osuntoken *et al*, 1972; Breaky & Kala, 1977). Moreover, it is well known that the quinolones, now the most effective and widely used group of antibiotics in typhoid, can cause psychotic symptoms such as hallucinations.

These points serve to highlight the interplay of various biological factors in the aetiology and perhaps in the manifestations of acute brief psychosis in developing countries. There is a dire need for similar studies on the subject in these settings, which may also help in a search for finding the aetiology of psychosis in general.

Breaky, W. R. & Kala, A. K. (1977) Typhoid catatonia responsive to ECT. *British Medical Journal*, *ii*, 357–359.

Collins, O. Y., Varma, V. K., Wig, N. N., et al (1999) Fever and acute brief psychosis in urban and rural settings in north India. *British Journal of Psychiatry*, **174**, 520–524.

Durrani, A. B., Durrani, I. U., Abbas, N., et al (1997) Epidemiology of cerebral malaria and its mortality. *Journal of Pakistan Medical Association*, **47**, 213–215.

Osuntoken, B. O., Bademosi, O., Ogunremi, K., et al (1972) Neuropsychiatric manifestations of typhoid fever in 959 patients. *Archives of Neurology*, **27**, 7–13.

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People at risk of schizophrenia and other psychoses: comments on the Edinburgh High-Risk Study

Sir: Hodges *et al* (1999) present a research design to study the process of transition to psychosis. Our purpose is to make some constructive comments on the paper and to describe an alternative research strategy which has similar aims.

Although the paper attracted criticism, mainly because of views about premature publication, we believe the study has merit. The problems of the study, however, relate more to design issues. The authors highlight the failure of the traditional high-risk strategy to realise its potential, and propose a partial solution. This failure is partly a result of the long latency to expression of risk in most (but not all) of these studies, and partly is due to the sole reliance on family history as a risk marker. The Edinburgh study appears at first glance to address the first weakness, yet this turns out to be a limited solution. The second weakness remains. The sample is defined as high-risk on genetic grounds only, a necessary consequence of restricting the sample to 'well' or pre-symptomatic individuals. This ultimately extends the latency of the expression of risk and hence the length of the follow-up period and limits the generalisability of the findings to psychosis or schizophrenia as a whole, since a small minority only of cases have this pattern of family history. The advantage is that the patients who develop psychosis will have been assessed from the asymptomatic