

may be task dependent. *Schizophrenia Research*, **37**, 35–44.

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Cognitive-behavioural interventions in schizophrenia

Hodgins & Müller-Isberner (2004) in their clinical implications assert that schizophrenia patients with antisocial behaviour 'require cognitive-behavioural interventions aimed at changing antisocial behaviours...', yet the paper itself can only quote evidence of effectiveness of these techniques in offenders who are not mentally ill (McGuire, 1995). It therefore seems unclear why they then suggest that these techniques will be effective in reducing antisocial behaviours in people with schizophrenia and should be regarded as 'required'. Unfounded assumptions like these may be quoted by others referencing this paper and lead people to assume, mistakenly, an evidence base for this assertion. Providing cognitive-behavioural therapy to this client group may therefore provide no benefit but divert resources that may have benefited others. While I agree that reducing antisocial behaviour in this client group is desirable, we should not hasten to assume, in the absence of evidence, that cognitive-behavioural therapy will provide a panacea.

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Authors' reply: Thank you for your interest in our work. It is important to note that we proposed that cognitive-behavioural interventions that have been shown to reduce offending could be adapted to treat a sub-group of offenders with schizophrenia. This sub-group shares with the offenders who have benefited from these interventions a history of antisocial behaviour since childhood, and antisocial attitudes and ways of thinking.

Dr Huda makes the presumption that interventions proven to reduce offending would not have a similar effect among offenders with schizophrenia. In our view, this presumption is unfounded. For example, treatments for medical conditions proven to be effective in people without schizophrenia are used with equal success with those with schizophrenia. We also disagree with Dr Huda's presumption because, generally, effective treatments target specific problems, not a disorder. This is true in the case of schizophrenia where different treatments have been shown to have a positive impact on positive and negative symptoms, substance misuse, life skills, social skills and employment skills (Bloom *et al*, 2000).

As we noted, compliance with medication is a prerequisite to participating in interventions aimed at reducing offending. Furthermore, these interventions need to be adapted for use with people with schizophrenia and their effectiveness evaluated. This has been done recently, for example, with interventions that targeted substance misuse. Programmes that were adapted to patients with schizophrenia and integrated with their other treatments are reported to be effective (Mueser *et al*, 2003).

We agree with Dr Huda that evidence for the effectiveness of cognitive-behavioural programmes in reducing offending among persons with schizophrenia is still sparse. It is presently limited to naturalistic follow-up studies with non-random assignment of participants (T. Fahy, personal communication, 2004; Kunz *et al*, 2004). In our view, however, the available evidence is encouraging and sufficient to undertake randomised controlled trials of these interventions with the sub-group of offenders with schizophrenia who display a stable pattern of antisocial behaviour from an early age. Given the potential of these interventions to prevent criminal activity, improve the individual patient's life, and reduce costs to both the health and criminal justice system, such trials are urgently needed.

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Suicide and antidepressant sales

Helgason *et al* (2004) reported that the dramatic increase in the sales of antidepressants in Iceland had not had any impact on suicide rates. While the sales of antidepressants increased fivefold from 14.9 defined daily doses per 1000 persons per day in 1989 to 72.7 in 2000, the suicide rate remained quite stable (around 11/1000 000 persons per year). The data were, however, not analysed separately by gender.

Based on the World Health Organization database on national suicide rates, Levi *et al* (2003) compared the periods 1980–84 and 1995–99, and found that suicide rates in Iceland decreased by 1.7% in males during the whole period (17.9 to 17.6) and by 46.7% in females (from 6.0 to 3.2). In spite of the fact that the time periods investigated by Helgason *et al* (2004) and Levi *et al* (2003) are not exactly identical, the general trends should be similar. Given this extremely great (27-fold) difference in the decrease in suicide rates between males and females, it would be interesting to see the data on the use of antidepressants in Iceland between 1989 and 2000 for males and females separately. Perhaps the increase in the use of antidepressants was more pronounced in women than in men, as for example in Australia (Hall *et al*, 2003)?

A significant negative correlation between antidepressant prescription and national suicide rates has been reported from Sweden, Denmark, Finland and Norway (Isacsson, 2000) as well as from Hungary (Rihmer, 2004), countries where suicide rates have been traditionally high. Statistical association, of course, does not necessarily imply causality, but considering the strong relationship between untreated depression and suicide, the national trends mentioned above point in the expected direction. On the other hand, however, if a marked increase in antidepressant

utilisation is not accompanied by a substantial decline in the suicide rate, it does not mean that better and more widespread treatment of depression is not helpful for preventing many suicides. While the overall suicide rate of Australia and Northern Ireland (two countries with traditionally low suicide rates) have not substantially decreased during the past 10 years, a significant association between increased antidepressant use and decreased suicide rates in different age cohorts has been reported (Hall *et al*, 2003; Kelly *et al*, 2003).

Hall, W. D., Mant, A., Mitchell, P. B., et al (2003)

Association between antidepressant prescribing and suicide in Australia, 1991–2000: trend analysis. *BMJ*, **326**, 1008–1012.

Helgason, T., Tómasson, H. & Zoëga, T. (2004)

Antidepressants and public health in Iceland: time series analysis of national data. *British Journal of Psychiatry*, **184**, 157–162.

Isacsson, G. (2000) Suicide prevention – a medical breakthrough? *Acta Psychiatrica Scandinavica*, **102**,

113–117.

Kelly, C. B., Ansari, T., Rafferty, T., et al (2003)

Antidepressant prescribing and suicide rate in Northern Ireland. *European Psychiatry*, **18**, 325–328.

Levi, F., La Vecchia, C., Lucchini, F., et al (2003)

Trends in mortality from suicide, 1965–99. *Acta Psychiatrica Scandinavica*, **108**, 341–349.

Rihmer, Z. (2004) Decreasing national suicide rates –

fact or fiction? *World Journal of Biological Psychiatry*, **5**, 55–56.

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Authors' reply: We have data on the suicide rates by gender from 1978 to 2000. The average rate for that period is about 19 per 100 000 for men and about 5 for women. The yearly data series for women is a sequence of numbers varying from 3 to 14. Because of the small number of female suicides they can vary considerably. Even 5-year averages would have large standard deviations. If an over-dispersion coefficient of 2 is assumed, the size of the standard deviation in 5-year averages should be around 1.4 for women and 2.6 for men. Therefore, observed 5-year averages of 4–7 for women and 17–22 for



Fig. 1 Observed suicide rates in Iceland per 100 000 by gender.

men could be expected. Average rates may vary according to choice of 5-year periods (Fig. 1). The rates during 1995–1999 were 18.1 for men and 4.6 for women, but 21 for men and 5 for women during 1996–2000. The rates quoted in Isacsson's letter for 1995–1999 are actually for 1995–1996 (Levi *et al*, 2003) and too low. Taking 5-year averages is a waste of information because it ignores the time series structure in the data. With such limited data as the number of suicides in Iceland it is vital to use statistical techniques that use data as efficiently as possible. In this case the dynamics of suicide rates seemed to be similar for both genders, so data on them was pooled. In our opinion time series methods should be used for these data as they take advantage of the time series structure of the data. Furthermore, a time series approach leads to improved *P* values and decreases the possibility of spurious regression (Granger & Newbold, 1974).

In our paper (Helgason *et al*, 2004a) we mentioned that suicide rates had not decreased in Norway since 1995 in spite of increasing antidepressant sales.

In 1989 the amount of antidepressants prescribed was 13.9 defined daily doses per 1000 per day for men and 27.6 for women aged ≥ 15 years (Helgason *et al*, 1997). The amount prescribed in 2001 had increased to 66.8 and 119.1 defined daily doses per 1000 per day for men and women, respectively (Helgason *et al*, 2004b), i.e. a slightly greater increase for men without affecting suicide rates for either gender.

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Helgason, T., Tómasson, K., Sigfússon, E., et al (2004b)

Screening for mental disorders in the community 1984 and 2002 and prescriptions for psychopharmaca in 1984 and 2001. *Læknablaðið (Icelandic Medical Journal)*, **90**, 553–559.

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Transcranial direct current stimulation

Kurupparachchi & Wijeratne (2004) support the use of innovative and cheaper treatments for depression in developing countries. In Brazil, for instance, antidepressants are scarcely available in the public sector and the delivery of these drugs is irregular, hence hindering long-term treatment. A recent study showed that only 17% of primary care patients with current depressive disorder in Brazil received any treatment for their depression. In comparison, 49% and 34% of patients with similar conditions in Australia and the USA, respectively, received treatment for