Of course, the aetiology of anorexia nervosa is multi-factorial, but to suggest that difficulties in family functioning do not cause the condition, is surely as inaccurate as to say that the condition is not caused by genetic factors, life events or societal pressures to be thin. All these factors are likely to play a part, to a greater or lesser extent, in an individual case.

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## Suicide attempts v. deliberate self-harm

Isometsä & Lönnqvist (1998), who focus on a clinical variable of deliberate self-harm for predicting future repetition or eventual suicide, only touched upon the issue of the ambiguity in their definition of suicide attempts/deliberate self-harm. The authors contend that this ambiguity in definition does not introduce "any bias in the reporting of previous attempts".

Unfortunately, any ambiguity in a definition always has the potential to introduce bias in epidemiological studies and this is why operating definitions of caseness are so important. Stating their operational definition could have removed the ambiguity and the potential for bias.

It is important to recognise the two syndromes of self-harm, namely suicide attempt (failed suicide) and non-fatal deliberate self-harm when death was not intended, sometimes pejoratively referred to as parasuicide, but which term remains useful. In the former syndrome, the act is designed to be fatal and any survival is accidental. In the latter, the act is designed not to be fatal and so any death is accidental. Deliberate self-harm is more common in females, although differences in gender-specific rates are narrowing (Hawton et al, 1997). It often leads to frustration among health care workers and deterioration in their relationship with the patient, with the potential for developing "malignant alienation" (Watts & Morgan, 1994). Any approach to secondary prevention of suicide must recognise this distinction, although the attitude towards the latter syndrome must be serious, sensitive and sympathetic. Unless the definition of caseness of 'suicide attempt'

in this study was clearly stated to exclude the second group of subjects, there could be a serious bias to the study. This could account for the higher proportion of female suicides who were not first-time attempters. The bias in the study would be that the finding that most male completed suicides die in their first suicide attempt may be a spurious one resulting from the lack of operational definition of suicide attempt and the inclusion of 'parasuicide' in the study.

Also, the authors have not indicated whether pregnant women and postnatal women have been excluded from the study. Pregnancy and motherhood have been postulated to provide some protection against suicide (Appleby, 1991).

The implication is that the major conclusion of the study – that the approach to suicide prevention should be different for men and women – may be erroneous.

**Appleby, L. (1991)** Suicide during pregnancy and in the first postnatal year. *British Medical Journal*, **302**, 137–140

Hawton, K., Fagg, J., Simkin, S., et al (1997) Trends in deliberate self-harm in Oxford, 1985–1995. Implications for clinical services and prevention of suicide. British Journal of Psychiatry, 171, 556–560.

**Isometsä, E.T. & Lönnqvist, J. K. (1998)** Suicide attempts preceding completed suicide. *British Journal of Psychiatry*, **173**, 531–535.

Watts, D. & Morgan, G. (1994) Malignant alienation: Dangers for patients who are hard to like. *British Journal* of Psychiatry, 164, 11–15.

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Authors' reply: Dr Ogundipe has given us the opportunity to clarify several points. His main argument was that our definition of a suicide attempt was ambiguous and did not exclude parasuicides (as opposed to true suicide attempts), which resulted in a bias in our comparison between genders, as more females conduct parasuicidal acts than males; we disagree.

The definition for a suicide attempt in the research phase of the National Suicide Prevention Project in Finland was a clinical one, based on the field researcher's (a mental health professional) evaluation of the clinical significance of the act. Some degree of suicide intention needed to be present in order to rate an act as a suicide attempt, and the act needed to be fully undertaken, not only planned or aborted. We do not share Dr Ogundipe's conviction that suicidal acts can be reliably classified into 'suicide

attempts' and 'parasuicides'. Studies of suicide intent among suicide attempters/ parasuicides do not show a bimodal distribution of suicide intent (Suominen et al, 1997). In the pan-European WHO/Euro Multicentre Study on Parasuicide, the concepts of 'suicide attempt' and 'parasuicide' were used interchangeably (Ostamo & Lönnqvist, 1994).

Contrary to what Dr Ogundipe expects, the higher rate of parasuicide among females is not true in Finland. In fact, Finland is the only country in Europe where males seem to have a slightly higher incidence of parasuicides than females (Ostamo & Lönnqvist, 1994).

Our overall prevalence of suicides with previous attempts (44%) in Finland was generally in line with the five earlier, smaller studies we referred to (21-32%). As the mean age of suicides in Finland was somewhat lower, and preceding attempts are more prevalent in the younger age groups, the minor difference would likely totally disappear if the data were age-adjusted before comparisons. Finally, we would like to stress that we did not claim that suicide prevention needs to be totally different for males or females. On the grounds of our nationwide data, we pointed out the importance of early intervention, particularly (but not exclusively) among males.

Ostamo, A. & Lönnqvist, J. (1994) The epidemiology of attempted suicide in Helsinki, Finland 1989–1993. In Attempted Suicide in Europe. Findings from the Multicentre Study on Parasuicide by the WHO Regional Office for Europe (eds A. J. F. M. Kerkhof, A. Schmidtke, U. Bille-Brahe, et al), pp. 137–158. Leiden: DSWO Press.

Suominen, K., Isometsä, E., Henriksson, M., et al (1997) Differences in hopelessness, suicide intent and impulsivity among suicide attempters with major depression, alcohol dependence or both. Acta Psychiatrica Scandinavica, 96, 142–149.

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## Lithium and suicide prevention

Sir: Isacsson et al (1999) recommended that highly suicidal patients should be referred to psychiatric hospitals for supervision and often electroconvulsive therapy (ECT). We would like to draw attention to observations that might contribute to the prevention of suicides in highly suicidal patients.

During the past decade a number of studies have examined the effect of prophylactic lithium treatment on the mortality and suicidal behaviour of manic-depressive patients. Two reviews, Tondo et al (1997) and Schou (1998), have analysed them and found a statistically significant association between long-term lithium treatment, on the one hand, and reduced mortality and suicidal behaviour on the other. According to the first review, the number of suicidal acts was on average 3.2 per 100 patient-years in patients without lithium and 0.37 per 100 patient-years in patients with lithium, an 8.2-fold difference. The second review showed that whereas manic-depressive patients have a mortality that is two to three times that in the general population, the mortality of patients with lithium treatment was not higher or was only slightly higher than in the general population. The number of suicide attempts was 6-15 times lower and the number of completed suicides 3-17 times lower when the patients were on lithium than when they were not. When lithium treatment was discontinued, the mortality and the suicidal behaviour increased.

These observations indicate strongly that prophylactic lithium treatment has an anti-suicidal action, but correlation is not the same as causation, and other factors than the treatment may have played a role. It is, however, noteworthy that an association between suicidal behaviour and drug treatment has not been demonstrated for use of other mood stabilisers, where the same factors must have been at work. In a European, randomised, collaborative long-term trial, no suicidal act occurred in patients on lithium, whereas nine suicidal acts were observed in patients having received carbamazepine (Thies-Flechtner et al, 1996).

The findings reviewed above do not prove definitely that lithium has an antisuicidal action but the evidence does not reject such a hypothesis. We suggest that prophylactic lithium treatment should be given to manic-depressive patients at high risk of committing suicide, that is patients with severe depression or depression with persistent suicidal ideation or with a history of suicide attempts.

Isacsson, G., Holmgren, P., Druid, H., et al (1999)
Psychotropics and suicide prevention. Implications from toxicological screening of 5281 suicides in Sweden 1992–1994. British Journal of Psychiatry, 174, 259–265.

Schou, M. (1998) The effect of prophylactic lithium treatment on mortality and suicidal behavior: A review for clinicians. *Journal of Affective Disorders*, **50**, 253–259.

Thies-Flechtner, K., Müller-Oerlinghausen, B., Seibert, W., et al (1996) Effect of prophylactic lithium treatment on suicide risk in patients with affective disorders: Data from a randomized prospective study. Pharmacopsychiatry, 29, 103–107.

Tondo, L., Jamison, K. R. & Baldessarini, R. U. (1997) Effect of lithium maintenance on suicidal behavior in major mood disorders. Annals of the New York Academy of Sciences, 836, 339–351.

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## Alcohol, hypertension and cognitive decline

Sir: Stewart (1999) highlights some interesting issues regarding the role of hypertension in dementia. No reference is made, however, to the potential role of alcohol in these conditions. Alcohol excess has been linked independently to both cognitive impairment and high blood pressure, although the concept of a distinct primary alcoholic dementia remains controversial (Smith & Atkinson, 1995).

Stewart observes that an apparent fall in blood pressure can occur at the onset or during the development of dementia. This process may well be related to alcohol withdrawal in some individuals. One of the pathways into abstinence seen in older alcoholics occurs when some consequences of the dementing process (e.g. institutionalisation) limit the supply of drink and propel the individual into an 'involuntary' abstinence. In such cases the patient may also experience a fall in blood pressure as alcohol is withdrawn, contributing to the clinical picture described by Stewart. Curtis et al (1997) have documented alterations in systolic blood pressure which correlate with changes in drinking status. The role of alcohol should be investigated in future longitudinal studies of hypertension.

Curtis, A. B., James, S. A., Strogatz, D. S., et al (1997) Alcohol consumption and changes in blood pressure among African Americans: The Pitt county study. American Journal of Epidemiology, 146, 727–733.

Smith D. M. & Atkinson, R. M. (1995) Alcoholism and dementia. International Journal of Addictions, 30, 1843–1869. **Stewart, R. (1999)** Hypertension and cognitive decline. British Journal of Psychiatry, **174**, 286–287.

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## Prolonged seizures detectable by electroencephalogram in electroconvulsive therapy

Sir: Mayur et al (1999) reported that 38 (16.4%) of 232 patients experienced prolonged cerebral seizure activity detectable two-channel electroencephalogram (EEG) at the first treatment in a course of electroconvulsive therapy (ECT). In contrast, Abrams (1997) argued that the existing evidence suggested prolonged cerebral seizure activity is rare in the routine practice of ECT, and is usually associated with coexisting brain disease. This debate prompted us to re-analyse the findings of two Scottish studies previously published in the Journal to report for the first time the prevalence of prolonged cerebral seizure activity in UK practice.

The Royal College of Psychiatrists (1995) recommended that seizures that last longer than 120 seconds ought to be regarded as prolonged and be terminated. The American Psychiatric Association recommended a cut-off of 180 seconds (American Psychiatric Association, 1990).

In the Dumfries study, single-channel EEG monitoring was conducted at most treatments given to 41 patients (McCreadie et al. 1989). Usable EEG recordings were obtained at 263 treatments (101 unilateral treatments and 162 bilateral treatments). One 23-year-old woman experienced prolonged seizures at her first four bilateral treatments in a course of six treatments. One 55-year-old woman experienced a prolonged seizure at her first bilateral treatment only. The prevalence of prolonged seizure activity at the first treatment was 2 out of 41 patients (4.9%, 95% CI - 1.7 to 11.5%) for seizures longer than 120 seconds, and 1 out of 41 patients (2.4%, 95% CI-2.3 to 7.1%) for seizures longer than

In the Edinburgh study, six-channel EEG monitoring was carried out at the outset and end of treatment plus a variable number of intermediate treatments in 22 patients (Scott et al, 1989). Usable EEG recordings were available for 100 treatments (43 unilateral treatments and 57 bilateral treatments). No prolonged seizures were detected.