Unlike the Scottish sample, Canoso's patients did not all suffer from schizophrenia; 19 of the 66 had other diagnoses. Furthermore, Canoso used Research Diagnostic Criteria and not DSM-III (American Psychiatric Association, 1980) for diagnosis. The difficulty in comparing the two studies is further compounded by Canoso assessing only orofacial movements, and using a score of 14 on the Rockland scale to separate moderate/severe, from mild, TD; the Scottish group used the same scale without qualification of the score accepted as indicating the presence of TD, and included an assessment of all body areas. The use of an arbitrarily high or low score would inadvertently consign TD patients to the non-TD group, or vice versa, respectively, and thus cancel out any real differences in haplotype between the two.

Hence, on the basis of differences in ethnicity and gender, and the use of various diagnostic criteria for both psychiatric illness and TD, comparisons between the Scottish and American results are, at best, difficult.

Turning to the conclusions of Drs Brown & White; the sample is clearly not large enough to confirm or refute an association between HLA B44 and TD, such is the degree of polymorphism at the HLA locus. Again, the comparison of their group with 500 British subjects tissue-typed for other reasons, is not tenable, as no indication is given of the sex, age or ethnicity of the latter.

It is interesting to note that one other study (Metzer et al, 1990) failed to replicate Canoso's findings in 58 patients at an Arkansas Veterans Administration facility, but did find that possession of the DR4 antigen increased the relative risk for TD to 3.04, and that all patients with the extended haplotype B44-DR4 had neurolepticinduced movement disorder. Drs Brown & White's suggestion of an association between schizophrenia and B44, although not supported by research to date, perhaps indicates that the extended B44-DR4 haplotype predisposes to both schizophrenia and TD, or that the latter is yet another symptom of the former as some authors suggest (Crow et al. 1983). The A1-B37 extended haplotype has already been implicated in increasing the relative risk for schizophrenia to 15.87 (Metzer et

Clearly, further research is needed to determine the evasive links that exist between schizophrenia, TD and HLA haplotype.

PADRAIG WRIGHT

The Bethlem Royal and Maudsley Hospital Denmark Hill London SE5 8AZ

#### References

AMERICAN PSYCHIATRIC ASSOCIATION (1980) Diagnostic and Statistical Manual of Mental Disorders (3rd edn) (DSM-III). Washington, DC: APA.

CANOSO, R. T., ROMERO, J. A. & YUNIS, E. J. (1986) Immunogenetic markers of chlorpromazine induced tardive dyskinesia. *Journal* of Neuroimmunology, 12, 247-252.

CROW, T. J., OWENS, D. G. C., JOHNSTONE, E. C., et al (1983) Does tardive dyskinesia exist? Modern Problems of Pharmacopsychiatry, 21, 206-219.

METZER, W. S., NEWTON, J. E. O., STEELE, R. W., et al (1988) HLA antigens and haplotypes in schizophrenia. Neuropsychiatry, Neuropsychology and Behavioural Neurology, 1, 39-46.

—, —, et al (1990) HLA antigens in tardive dyskinesia.

Journal of Neuroimmunology, 26, 179–181.

# Menopausal depression

SIR: Much of Dr Wheatley's letter (*Journal*, March 1991, **158**, 431–432) on menopausal depression is a criticism of the study by Montgomery *et al* (1987) in which I carried out the psychiatric assessments, and there are several misunderstandings in what he says.

His main concern is that the instrument used to detect emotional symptoms was not specific to depression and did not enquire about 'biological' and some other symptoms. This was because our interest was not confined to depression. We preferred to assess all neurotic symptoms because this patient group, like many other out-patient populations, does not fall conveniently into one diagnostic category. Menopausal women experience a mixture of neurotic and physical symptoms, but few biological features of depression, hence the use of the SRD-30 (Kellner & Sheffield, 1973), which had sub-scales for anxiety, depression and somatic complaints and which has frequently been used in studies of a similar kind. Despite this, Dr Wheatley believes that psychopharmacologists have not heard of the SRD-30. They may however, have heard of the Clinical Interview Schedule (Goldberg et al, 1970) which we used to validate the SRD-30 scores.

His letter also manages to miss out our main finding: that psychological disorders responded to HRT in peri-menopausal but not post-menopausal women. The implication is that a hormonally sensitive sub-group may exist – although this is not to say that HRT is the treatment they need – but post-menopausal women who are depressed should be treated like anyone else, i.e. pharmacologically and, equally important, psychologically.

LOUIS APPLEBY

University of Manchester Department of Psychiatry Withington Hospital Manchester M20 8LR

## References

GOLDBERG, D., COOPER, B., EASTWOOD, M. et al (1970) A standardised psychiatric interview for use in community surveys. British Journal of Preventive and Social Medicine, 24, 18-23.

KELLNER, R. & SHEFFIELD, B. T. (1973) Self-rating scales of distress. Psychological Medicine, 3, 88–100.

MONTGOMERY, J. C., APPLEBY, L., BRINCAT, M., et al (1987) Effect of oestrogen and testosterone implants on psychological disorders in the climacteric. Lancet, i, 297-299.

This correspondence is now closed. I.P.

# **EPDS** by post

SIR: The Edinburgh Postnatal Depression Scale (EPDS; Cox et al, 1987) is a 10-item self report scale developed as a screening tool for use by health visitors with a post-partum population. It is short, simple, and easy to score and administer. For these reasons it has become very popular as a research tool, although this was not its original purpose.

We are currently using it as part of a study of womens' experiences of screening during routine antenatal care. Our earlier work (Green, 1990) and that of others (e.g. Watson et al, 1984) had suggested that low post-natal emotional well-being might be predicted from low antenatal mood. We therefore chose to administer the EPDS at 35 weeks of pregnancy and at six weeks post-partum. We have complete data from over 1300 women.

The EPDS has been validated for antenatal use by Murray & Cox (submitted), who observe that "Fortunately, the EPDS contains no specific reference to the post-natal period so none of the items had to be altered for this study". While this is true, we would like to draw attention to one of its items which, it is clear from our own data, is capable of a different interpretation when asked antenatally. The item in question is (within the past week) "The thought of harming myself has occurred to me". This item is intended to detect suicidal thoughts, but, to a woman well advanced in pregnancy, clumsy and ill-balanced, it can be read as "I am preoccupied by the possibility of falling and hurting myself" or even as concern that harm might befall her during labour and delivery. Accordingly, we have found some women scoring the maximum on this item while having relatively low scores overall, and some have added explicit comments which confirm that their interpretation was not that originally intended. We would therefore warn others who may be using the EPDS in late pregnancy to treat this with caution.

We have yet to complete our analysis, but our impression is that, even without the complication of the last item, many women have been obtaining very high scores at 35 weeks. This was also observed by Murray & Cox and is consistent with the findings of Watson *et al* (1984).

Our use of the EPDS has been in postal questionnaires as part of a longitudinal study. Women therefore complete the scale in their own homes at a time of their own choosing. By 35 weeks they are used to answering questions about their feelings and in many cases a relationship has been developed, as one woman said "It's like having a penfriend". Any of these factors may account for the fact that we are obtaining some very high scores and a mean level post-natally that appears to be higher than is usually reported. We have observed a tendency for scores on the Spielberger State Trait Anxiety Inventory (STAI) to be lower when sent through the post. We would therefore be interested to hear from others who have sent the EPDS through the post, or who have any other data on postal assessment of emotional state.

> JOSEPHINE M. GREEN CLAIRE SNOWDON HELEN STATHAM

Child Care and Development Group University of Cambridge Cambridge CB2 3RF

### References

COX, J. L., HOLDEN, J. M. & SAGOVSKY, R. (1987) Detection of postnatal depression: Development of the 10-item Edinburgh Postnatal Depression Scale. *British Journal of Psychiatry*, 150, 782-786.

GREEN, J. M. (1990) "Who is unhappy after childbirth?" Antenatal and intrapartum correlates from a prospective study. *Journal of Reproductive and Infant Psychology*, 8, Part 3.

WATSON, J. P., ELLIOTT, S. A., RUGG, A. J., et al (1984) Psychiatric disorder in pregnancy and the first postnatal year. British Journal of Psychiatry, 144, 453–462.

# Educational status and neurological abnormalities in schizophrenia

SIR: An interesting finding reported by Rossi et al (Journal, November 1990, 157, 735–740) is the significant correlation between educational status and neurological impairment among schizophrenic patients. However, the authors have not elaborated on the nature of this association and have not discussed the implications of this important observation. In a comparable study of neurological soft signs (NSS) in schizophrenic patients and their first-degree relatives (Shaji et al, 1990) we found less-educated subjects having more NSS even after controlling for the effects of age and sex. The possibility of an early-onset illness leading to poor educational attainment as an explanation for the association seems unlikely as