Sensky, T., Turkington, D., Kingdon, D., et al (2000) A randomized controlled trial of cognitive-behavioural therapy for persistent symptoms in schizophrenia resistant to medication. Archives of General Psychiatry, 57, 165–172.

Turkington, D. & Kingdon, D. (2000) Cognitive– behavioural techniques for general psychiatrists in the management of patients with psychoses. *British Journal of Psychiatry*, **177**, 101–106.

## Declaration of interest

The study in question was funded by Pfizer. D.T. has undertaken consultancy work for Pfizer and has received honoraria and hospitality from Pfizer, Janssen and Lilly in relation to conference presentations on the subject of CBT in schizophrenia.

**D. Turkington** University of Newcastle, School of Neurosciences and Psychiatry, Department of Psychiatry, Royal Victoria Infirmary, Queen Victoria Road, Newcastle upon Tyne NEI 4LP, UK

## Cognitive impairment in bipolar disorder

We write to correct some misconceptions evident in the recent editorial by Ferrier & Thompson (2002). Previously, we reported impairment in accuracy measures on recognition memory tasks and increased latencies on executive tasks in patients with bipolar disorder in remission (Rubinsztein et al, 2000). Ferrier & Thompson (2002) argue that the cognitive impairment observed in our study may have been confounded by the effects of 'residual' symptoms. As yet there is no generally accepted 'cut-off' for what constitutes remission. We devised rigorous criteria to define remission based on a patient's own view of his or her illness, that of their psychiatrist and a structured interview. We excluded patients with scores of  $\geq 8$  on both the Hamilton Rating Scale for Depression (HRSD) and Young Mania Scale (YMS). These rating scales were devised to rate symptom severity in patients with an affective disorder and not for use in normal control subjects. Our average reported score on the HRSD was 2.1 (s.e.m.=0.5) and on the YMS it was 0.8 (s.e.m.=0.4). Thus, very few residual symptoms were evident and these scores certainly do not support any concern that patients had residual depression or mania.

Although the rationale for using such scales in controls is dubious, for the sake of argument we have reanalysed our data reported in Rubinsztein *et al* (2000) using a partial correlation analysis, as in Clark et al (2002), to control for differences observed on the HRSD (we did not rate control subjects using the mania scale) on the tests that showed significant impairment by analysis of variance (ANOVA). We still find significant impairment on both the visual recognition memory tasks and on latency measures from the one-touch Tower of London planning task (see Table 1).

These findings suggest that there are trait impairments in accuracy of visual recognition memory and slower responses on a planning task in bipolar remission. Importantly, impairments of memory and learning have been consistently observed in a number of other recent studies where rigorous diagnostic criteria for remission were applied (e.g. Van Gorp et al, 1998; Krabbendam et al, 2000; Cavanagh et al, 2002) as well as in a recent unpublished study (L. Clark, personal communication, 2002) that showed that verbal recall was still impaired following partial correlation for residual symptoms. The presence of significant impairments on executive tasks in bipolar remission has been more variable and may depend on clinical factors or the specific neuropsychological test paradigm employed. The precise functional significance of the cognitive impairment in bipolar remission needs to be examined further but may well impact on response to psychological and drug treatments. Cognitive symptoms could in fact be among the most sensitive indicators of incomplete remission.

**Cavanagh, J.T.O., van Beck, M., Muir, W., et al (2002)** Case-control study of neurocognitive function in euthymic patients with bipolar disorder: an association with mania. *British Journal of Psychiatry*, **180**, 320–326.

Clark, L., Iversen, S. D. & Goodwin, G. M. (2000) Sustained attention deficit in bipolar disorder. *British Journal of Psychiatry*, **180**, 313–319.

Ferrier, I. N. & Thompson, J. M. (2002) Cognitive impairment in bipolar affective disorder: implications for the bipolar diathesis. *British Journal of Psychiatry*, **180**, 293–295. Krabbendam, L., Honig, A., Wiersma, I., et al (2000) Cognitive dysfunction and white matter lesions in patients with bipolar disorder in remission. Acta Psychiatrica Scandinavica, 101, 274–280.

Rubinsztein, J. S., Michael, A., Paykel, E. S., et al (2000) Cognitive impairment in remission in bipolar affective disorder. *Psychological Medicine*, **30**, 1025–1036.

Van Gorp, W. G., Altshuler, L., Theberge, D. C., et al (1998) Cognitive impairments in euthymic bipolar patients with and without prior alcohol dependence. Archives of General Psychiatry, 55, 41–45.

J. S. Rubinsztein, B. J. Sahakian Department of Psychiatry, University of Cambridge, Box 189, Addenbrooke's Hospital, Hills Road, Cambridge CB2 2QQ, UK

## Antenatal anxiety, parenting and behavioural/emotional problems in children

O'Connor et al (2002) report the effects of antenatal anxiety on behavioural/emotional problems in 4-year-old children. Their analysis of the Avon Longitudinal Study of Parents and Children (ALSPAC), a longitudinal, prospective study of women, their partners and an index child (Golding et al, 2001) takes into account a number of important covariates, including postnatal anxiety, gestational age, birth weight, and socio-economic status. They have not, however, included any measures of parenting. This is of concern because there is now a substantial body of evidence to indicate a clear association between parenting and child emotional and behavioural problems. For example, there are now a number of empirically validated models depicting the developmental progression for conduct and behaviour problems. These show a clear association between parenting practices characterised by harsh and inconsistent discipline, little positive parental involvement with the child, poor monitoring and supervision, and behaviour and conduct problems in early childhood (Patterson et al, 1989). Indeed, work using structural equation models showed that parenting and family interaction variables accounted

Table I Results of partial correlation analysis on tests in which ANOVAs were significant

	Dependent variable	Partial correlation coefficients	Р	
Pattern recognition memory	Proportion correct	0.41	0.02	
Spatial recognition memory	Proportion correct	0.31	0.07	
Delayed matching to sample	Proportion correct	0.35	0.04	
One-touch Tower of London	Response time	<b>-0.42</b>	0.02	
Affective shifting task	Response time	0.04	0.81	