In this issue

This issue contains two reviews on neurobiological and neurocognitive aspects of depression, and a commentary and paper on transcranial magnetic stimulation (TMS) as a treatment for depression. Other sets of papers examine various aspects of common mental disorders, suicide, and alcohol use and common mental disorders.

Neurobiological abnormalities in recovered depressed patients

In the first review, Bhagwagar & Cowen (pp. 307–313) review recent developments in the study of persistent neurobiological abnormalities in patients recovered from depression. They found a growing body of evidence to suggest such abnormalities (e.g. changes in the availability of serotonin receptor subtypes, increases in cortisol secretion), usually observed in the acute phase, persist in recovery and after medication is stopped. However, the authors note that it is still unclear which abnormalities precede onset and which are a consequence of recurrent depressive illness.

Neurocognitive perspectives on recurrence of depression

In the second review, Robinson & Sahakian (pp. 315–318) outline a hypothesis to account for the kindling effect in depression, i.e. the process whereby the first episode is assumed to leave behind a residue that makes further episodes more likely. In essence, they propose that this occurs because the different symptoms of depression involve different neural systems that become associated during the first episode, and it is this set of associations that increases the risk of recurrence.

Transcranial magnetic stimulation for depression

Ebmeier & Herrmann (pp. 319–321) provide a commentary on a randomized controlled trial (reported on in this issue by Mogg *et al.*) of TMS for depression. These authors note that while differences in response to TMS in the treatment and control arms of the trial did not reach statistical significance, this may have been due to limited statistical power. A meta-analysis conducted by Ebmeier & Herrmann found similar sized, and statistically highly significant, effects to those reported by Mogg *et al*. They conclude that it is too early to dismiss TMS as one option in the treatment of depression.

The trial (Mogg *et al.*, pp. 323–333) compared adjunctive repetitive TMS of the left dorsolateral prefrontal cortex and sham adjunctive repetitive TMS in a sample of 59 patients with major depression followed at 6 weeks and 4 months. The authors found that depression scores were reduced in both groups, with no significant difference between them. At the end of treatment, in the real TMS group 32% were responders and 25% were in remission. The respective figures in the sham TMS group were 10% and 10%. These differences, however, were not statistically significant.

Common mental disorders

This issue contains six further papers on aspects of depression and other common mental disorders (CMD). In the first, Cooper *et al.* (pp. 335–342) investigated the impact of financial strain and social support on risk for CMD in lone parents in a general population sample of 8580 subjects. They found that risk of CMD in lone mothers was around two times higher than for other women. This difference was no longer significant when financial strain and social support were controlled. The risk of CMD for lone fathers was around four times higher than for other men. This difference remained after financial strain and social support were controlled.

Timko *et al.* (pp. 343–352) examined the effects of parental depression (including course type) on adult children in a sample of 248 depressed parents (with 215 adult offspring) and 235 matched parent controls (with 261 adult offspring) followed for 23 years. They found that adult children of depressed parents were more impaired in domains of depression and disability, and received more help for mental health problems. Those whose parents had a non-remitting course showed greater impairments.

Olino *et al.* (pp. 353–363) compared two models of the overlap between depression and anxiety in a sample of 891 subjects from the Oregon Adolescent Depression Project followed over 15 years. The two models tested were: (1) a single-factor model, which suggests depression and anxiety are both manifestations of a single internalizing factor; and (2) a three-factor model, which suggests depression and anxiety stem from a combination of shared and disorder-specific factors. Using structural equation modelling, they found that a three-factor model fit their data significantly better than a single-factor model.

Kessler *et al.* (pp. 365–374) investigated the temporal relationship between, and risk factors for, major

depression (MD) and generalized anxiety disorder (GAD) in a sample of 5001 subjects from the National Comorbidity Survey follow-up. They found that baseline MD predicted the onset, but not persistence, of GAD. Baseline GAD predicted both the onset and persistence of MD. Differences were found in the types of risk factors associated with MD and with GAD, which, the authors conclude, argue against the view that MD and GAD are different manifestations of a single underlying internalizing syndrome.

Martens *et al.* (pp. 375–383) examined the relationship between depression and anxiety, and 24-hour heart rate variability (HRV) post-myocardial infarction (MI) in a sample of 93 patients assessed 2 months after MI. Multivariable analyses showed no associations between depression or depressive symptoms and HRV. However, a lifetime diagnosis of anxiety (but not anxiety symptoms) was associated with reduced HRV. The authors conclude that anxiety, but not depression, may negatively influence parasympathetic modulation of heart rate in post-MI patients.

Kunik *et al.* (pp. 385–396) report findings from a RCT comparing cognitive behavioural therapy for anxiety and depression in those with chronic obstructive pulmonary disease (COPD) and education for COPD. In a sample of 238 patients with moderate to severe anxiety and/or depressive symptoms treated for COPD in the previous year, they found both interventions led to improvements, over 8 weeks, in quality of life and symptoms of depression and anxiety, changes which were sustained over time. The authors conclude that both interventions can achieve sustainable improvements.

Suicide

Four further papers examine aspects of suicide. In the first, Li *et al.* (pp. 397–406) examined risk factors for suicide, using psychological autopsy, in a sample of 114 subjects aged 14–25 who died by suicide and 91 controls who died of other injuries. The majority of suicides were by ingesting pesticides (70%). Several independent risk factors were identified, including severe life events in the 2 days prior to death, depressive symptoms in the 2 weeks prior to death, and low quality of life in the month before death.

McGirr *et al.* (pp. 407–417) investigated whether the association between impulsive-aggressive behaviours and suicide was evident for all age groups in 695 subjects, assessed using psychological autopsy, who had committed suicide and 246 living controls. They found that higher levels of impulsivity, a lifetime history of aggressive behaviour and novelty seeking were associated with younger age of death by suicide. Increasing levels of harm avoidance were associated

with increasing age of suicide. The authors conclude that impulsive-aggressive traits are more important in risk of suicide in younger age groups.

Clarke *et al.* (pp. 419–431) examined patterns of suicidality (ideation, behaviour) across ethnic groups in a sample of 61673 subjects drawn from the Canadian Community Health Survey. They found that, compared with Anglophone whites, Francophones and Aboriginals had higher rates of suicidality and visible minorities and foreign-born whites had lower rates. Patterns of suicidality varied across groups. For example, social disadvantage increased rates in visible minorities. This was also the case for Aboriginals, but risk in this group was buffered by a strong sense of community bonds.

Boden *et al.* (pp. 433–439) examined associations between cigarette smoking and suicidal behaviour in a sample of 1041 subjects followed for 25 years as part of the Christchurch Health and Development Study. The authors found that smoking was associated with an increased odds of suicidal ideation (OR 3.4) and suicide attempts (OR 4.4). However, when non-observed fixed confounding factors were controlled for in fixed-effects regression models, these associations were reduced to non-significance. The authors conclude that the association between smoking and suicidal behaviour may be largely explained by non-observed background factors.

Alcohol use and common mental disorders

This issue concludes with two papers on aspects of alcohol use and CMD. In the first, Lynskey & Agrawal (pp. 441–449) examined whether some component of the co-morbidity of MD and alcohol use disorders (AUD) may arise from the influence of current mental state on self-reports of AUD in a sample of 43093 subjects drawn from the National Epidemiological Survey on Alcohol and Related Conditions. Using differential criterion functioning, the authors did find some impact of MDD on reports of AUD. However, this was of a degree to suggest that only a small component of the co-morbidity of MD and AUD can be attributed to overreporting conditional on MD.

In the final paper, Haynes *et al.* (pp. 451–455) investigated the relationship between alcohol consumption and recovery from CMD in a sample of 706 subjects with a CMD followed for 18 months. They found that non-recovery was associated, at trend level, with binge drinking on at least a monthly basis and alcohol dependence. There was no evidence that hazardous drinking was associated with non-recovery.

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