

In this issue

This issue contains one editorial on the future of psychiatry in low- and middle-income countries, and a review and two commentaries on the impact of antipsychotics on brain structure. Other sets of papers examine various aspects of psychosis, and depression and suicide. Five final papers examine other topics.

Psychiatry in low- and middle-income countries

In the editorial, Patel (pp. 1759–1762) argues that the shortage and inequitable distribution of psychiatrists in low- and middle-income countries is a key reason for the ‘treatment gap’ for those with a mental disorder. The author urges psychiatrists to adopt a public mental health leadership role in increasing access to care through the shifting of effective interventions to non-specialist health workers.

Antipsychotics and brain structure

Navari & Dazzan (pp. 1763–1777) report findings from a systematic review of 33 studies with data on structural magnetic resonance imaging and antipsychotic use. The authors found that antipsychotic use appears to act regionally rather than globally in the brain, and that volumetric changes are more pronounced with use of typical, compared to atypical, antipsychotics. There was further evidence of a specific effect of typical antipsychotics in increasing the volume of the basal ganglia. In response, Lewis (pp. 1779–1780) notes the continued methodological difficulties in disentangling to what extent observed changes in brain structure reflect the disease process, antipsychotic use, or interactions between these. In a further commentary, Borgwardt *et al.* (pp. 1781–1782) highlight recent studies in those with at-risk mental states which show qualitatively similar neurofunctional abnormalities to those found in schizophrenia, findings which they suggest indicate these are markers of increased vulnerability to psychotic disorders.

Psychosis

Four papers examine further aspects of psychosis. In the first, Dutt *et al.* (pp. 1783–1797) examined the association between candidate susceptibility genes (*COMT*, *BDNF*, *5-HTT*, *NRG1* and *DTNBP1*) and morphometric endophenotypes (lateral ventricular enlargement, reduced hippocampal volume) for psychosis, in a sample of 128 individuals with psychosis, 194 of their unaffected relatives and 61 controls. Using structural magnetic resonance imaging and information on individuals’

genotype, the authors found no evidence of any associations between the candidate genes and the morphometric endophenotypes.

Leeson *et al.* (pp. 1799–1808) investigated verbal memory impairments in a sample of 97 individuals with psychosis, mainly schizophrenia, and 97 matched controls, focusing on whether deficits were in retention (which would implicate the medial temporal lobe) or in encoding and retrieval (which would implicate the prefrontal cortex). The authors found that on all measures of performance those with schizophrenia were impaired compared to controls. A factor analysis in cases revealed that all variables, except verbal memory retention, loaded on a single factor. The authors conclude that the overall deficits may arise from a common abnormality of information processing in the prefrontal cortex, but that verbal memory retention may have a distinct aetiology.

Schlösser *et al.* (pp. 1809–1819) investigated functional connectivity by analyses of psychophysiological interactions (PPI) during learning processes in a sample of 13 individuals with schizophrenia and 13 controls. The authors found significant task-related modulation of functional connectivity between the left dorsolateral prefrontal cortex (DLPFC) and a network including the right DLPFC, left ventrolateral prefrontal cortex, premotor cortex, right inferior parietal cortex, left and right cerebellum and left occipital lobes in cases during short-term memory tasks involving overlearning. The authors conclude that activation changes associated with practice are associated with high functional connectivity between task-relevant areas in those with schizophrenia.

In the final paper on aspects of psychosis, Moritz *et al.* (pp. 1821–1829) utilized a new paradigm to investigate motivational factors for jumping to conclusions in a sample of 27 individuals with schizophrenia and 32 healthy controls. In brief, subjects were shown a series of classical paintings and asked to rate, and then choose, the most plausible from a choice of four, with anxiety-inducing music, happy music or no music playing in the background. The authors found that those with schizophrenia were more likely to rate implausible titles as plausible and to make more decisions. Anxiety-inducing music was associated with more decisions in those with current delusions compared to those with no delusions and controls.

Depression and suicide

Four further papers examine aspects of depression and suicide. In the first, Montag *et al.* (pp. 1831–1839) note that the functional BDNF Val66Met polymorphism may be an incremental risk factor for depression, on the basis

of evidence that carriers of the 66Met allele have smaller hippocampi and that stress induced atrophy of the hippocampus is associated with mood disorders. To further test this proposition, the authors investigated associations between BDNF and brain structure in a sample of 87 healthy individuals. They found that those with the 66Met allele had smaller parahippocampal volume, a smaller right amygdala, and that the thalamus, fusiform gyrus and several parts of the frontal gyrus were smaller.

Kovacs *et al.* (pp. 1841–1854) examined the relationship between mood repair repertoires (i.e. cognitive, behavioural, interpersonal, and somatic-sensory responses to sad affect) and the course of depression in a sample of 215 adults who had childhood onset depression and 122 controls, all of whom were followed longitudinally. The authors found that those with current or past depressive episodes reported more ‘maladaptive’ responses to their sadness than controls. In addition, ‘maladaptive’ responses were associated with increases in symptoms and likelihood of recurrence of symptoms over time.

Schomerus *et al.* (pp. 1855–1865) investigated attitudes that influence help-seeking for depression, using the Theory of Planned Behaviour (TPB) model, in a representative population-based sample of 2303 individuals in Germany. Intention to see a psychiatrist for elicited problems was assessed at the beginning and end of interviews. The authors found that a TPB path model predicted 42% and 50% of variance on the first question on intention in non-depressed and depressed individuals, respectively. On the second question on intention, these figures were 51% for non-depressed and 61% for depressed subjects. The authors conclude that willingness to see a psychiatrist for depression can be largely accounted for by attitudes conceptualized by the TPB.

Qin *et al.* (pp. 1867–1873) examined the influence of non-fatal poisoning with weak analgesics on subsequent suicide in a sample of 21 169 suicide cases and 423 128 matched controls drawn from registers of the entire Dutch population. The authors found that a prior hospital admission for poisoning with weak analgesics was associated with a markedly increased risk of subsequent suicide, independent of potential confounders. This risk was particularly high during the first week after admission and in those with a history of admission to a psychiatric hospital.

Other topics

In the first of five final papers on other topics, Grigoletti *et al.* (pp. 1875–1884) investigated mortality and cause of death in all individuals in contact with the South Verona Community-based Mental Health Service over a 20-year period [$n=6956$; died ($n=938$)]. The authors found an overall standardized mortality ratio (SMR) for the patients of 1.8, this being highest following the first

admission (SMR=2.6). The SMR for infectious diseases was highest in younger patients, those with a diagnosis of drug addiction and those with a personality disorder. The authors note that the physical health of those with mental health problems in the community is often neglected and needs much greater attention from policy makers, services and clinicians.

McAlonan *et al.* (pp. 1885–1893) examined white-matter abnormalities in a sample of 91 children aged 6–16 years [18 with high-functioning autism (HFA) and 18 with Asperger’s syndrome (ASP)] to specifically assess whether such abnormalities are distinct between those with HFA and those with ASP. The authors found that white-matter volumes around the basal ganglia were highest in the HFA group and intermediary in the ASP group compared to controls. In addition, compared to controls, those with HFA had less frontal and corpus callosal white matter in the left hemisphere; those with ASP had less frontal and corpus callosal white matter in the right hemisphere. The authors conclude that these differences suggest there may be distinct aetiological factors for specific autism spectrum disorders.

Galéra *et al.* (pp. 1895–1906) investigated the link between childhood hyperactivity-inattention symptoms (HIs) and subsequent academic achievement (at 8-year follow-up) in a sample of 1264 community-based individuals aged 12–26 years at follow-up. The authors found that HIs were independently associated with grade retention, failure to graduate from secondary school, obtaining a lower-level diploma and lower academic performance. Similar associations were found for childhood symptoms of conduct disorder.

van der Vlies *et al.* (pp. 1907–1911) examined the rate of cognitive decline, and the potentially modifying effect of the apolipoprotein E (APOE) genotype on this, in a sample of 99 patients with early onset Alzheimer’s disease (AD) (age ≤ 65 years) and 192 with late onset AD (age > 65 years) assessed at baseline and 1-year follow-up using the Mini Mental State Examination (MMSE). The authors found that those with early onset AD showed a faster rate of decline on the MMSE than those with late onset ADD. This decline was most marked in those who were APOE $\epsilon 4$ non-carriers.

In the final paper, Hamilton *et al.* (pp. 1913–1921) investigated overlaps in risk markers for fatigue syndromes and irritable bowel syndrome (IBS) in a sample of 4388 patients with any fatigue syndrome drawn from the UK General Practice Database and matched to a group with IBS and a group attending for another reason. The authors found that fatigue and IBS tended to share predisposing risk markers (e.g. mood and other symptom-based disorders), but differed on triggering risk factors.

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