

Highlights of this issue

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CBT for psychosis; depression and paediatric OCD

The New Year starts with a test of an established tenet of treatment in schizophrenia. Cognitive-behavioural therapy (CBT) has been advocated as an evidence-based psychotherapy for the symptoms of schizophrenia. Jauhar and colleagues (pp. 20–29) note that most of the robust trials of CBT in schizophrenia have failed to demonstrate a significant advantage, while meta-analyses have been more favourable. They carried out a systematic review and meta-analysis of the literature and found small pooled effect sizes for the superiority of CBT; the effect size was no longer significant once the sample was restricted to studies with low levels of bias from masking, randomisation and completeness of outcome data. The authors conclude that the claims that CBT is effective for positive or negative symptoms of schizophrenia may no longer be tenable. CBT is also routinely used to treat depressive illness, and has been demonstrated to be effective in treatment-resistant depression. Hollinghurst and colleagues (pp. 69–76) examined the cost-effectiveness of CBT, when utilised as an adjunct to pharmacotherapy for treatment-resistant depression, and concluded that this was a cost-effective treatment for primary care patients. Interestingly, the loss of earnings and lost productivity did not differ between the different treatment groups. Obsessive-compulsive disorder can be effectively treated with CBT, and there are animal data suggesting that pre-treatment, or post-treatment, with the glutamatergic partial agonist D-cycloserine can facilitate fear extinction to salient stimuli. Mataix-Cols and colleagues (pp. 77–78) report the results of a pilot study combining D-cycloserine, given after CBT sessions which included *in vivo* exposure to salient stimuli. They found that the D-cycloserine did not augment the CBT response, either acutely or in the longer term. They discuss several means of optimising the trial design and conclude that this augmentation strategy remains a promising area of translational research.

Shape and function in cortical white matter

Technological development has made it possible to measure different regions of the brain in a sophisticated fashion, and to examine their correlation with brain function or symptoms. Collinson and colleagues (pp. 55–60) assessed the main cortical white matter bundle – the corpus callosum – in first-onset and chronic schizophrenia and found that its volume was reduced in schizophrenia. Intriguingly, these differences in area and volume of the corpus callosum were most evident in the patients with chronic illness relative to the first-episode patients; also, they were restricted to certain parts of the corpus callosum, and not evident in the anterior callosum. The authors suggest that there are individual variations in the growth trajectory of the corpus callosum that deserve further study. A related editorial by Walterfang & Velakoulis (pp. 9–11) reviews the role of the corpus callosum as an index of healthy regional brain function, and assesses the research findings with respect to schizophrenia. They link the structural changes back to brain function, emphasising the important role of the corpus callosum in facilitating neural

transmission between different cortical regions, and how changes in the corpus callosum would give rise to dysconnectivity, postulated to play a role in the development of symptoms in schizophrenia.

Environmental factors and Tourette syndrome

Tourette syndrome is characterised by a host of motor and vocal tics beginning in early childhood and is the cause of significant physical and psychosocial morbidity. Mathews and colleagues (pp. 40–45) use the ALSPAC longitudinal cohort study to examine the key environmental risk factors associated with this disorder. They found one previously reported prenatal factor, maternal alcohol use during pregnancy, and three new pregnancy-related associations – inadequate weight gain in pregnancy, cannabis use and parity – to be significantly associated with Tourette syndrome. They did not find any association with previously reported factors including prenatal maternal smoking, low birth weight, gestational age and complications during delivery. An accompanying editorial by Gorman & Abi-Jaoude (pp. 6–8) reviews the contemporary aetiological model for the development of Tourette syndrome and highlights the need for these high-quality epidemiological studies to complement and inform genetic and brain studies of this complex disorder.

Epigenetics of bipolar disorder and 22q11.2 deletion syndrome

Bipolar disorder has been demonstrated to have a very high genetic loading, but environmental factors such as early-life adversity are also strongly related to developing bipolar disorder. Perroud *et al* (pp. 30–35) demonstrate that childhood trauma represents a risk factor for developing bipolar disorder, and that both the number of such traumatic events and their severity was strongly associated with the percentage of methylation within the promotor region of glucocorticoid receptor gene *NR3C1*, sampled from peripheral blood. They suggest that this methylation is a long-lasting marker of early-life adversity, which may be a proxy for enduring alterations of the hypothalamic-pituitary-adrenal axis. A related editorial by Uher & Weaver (pp. 3–5) considers the wider role of epigenetic factors in linking childhood experiences with adult disorders. They highlight the excitement of having peripheral blood markers indexing early environmental effects, and their valuable contribution to elucidating complex gene-environment interactions in a wide range of adult disorders. Niarchou *et al* (pp. 46–54) found that children with a 22q11.2 deletion syndrome demonstrated a range of cognitive impairments, and a significant decrease in IQ, with half of them fulfilling diagnostic criteria for psychiatric disorder. However, the decreased IQ was not a mediator for risk of psychopathology. The authors conclude that the genetic deletion has largely independent effects on IQ and the risk of psychopathology. They suggest that instances where low IQ has been found to be associated with higher risk of other psychiatric disorders, such as schizophrenia, may also reflect this pattern rather than the IQ mediating the risk of the disorder.

We wish the readers of the *Journal* a healthy, happy and stimulating New Year.

*The authorship of this item has been corrected post-publication, in deviation from print, and in accordance with a correction published vol. 204, p. 164.