

In this issue

This issue contains two reviews, one of pathways from research to health benefits and one on psychopathy, attention and emotion. Three papers examine aspects of antisocial personality disorder (ASPD) and conduct disorder, three examine depression and anxiety, and four examine aspects of psychosis. Three final papers report on studies of other topics.

From science to health benefits

In the first paper, Rutter & Plomin (pp. 529–542) report on a selective review of historical examples of research that has led to direct health benefits, as a basis for considering forms of successful interplay between science and clinical applications. The authors identify a number of recent neuroscience findings that may be particularly relevant for translation into health benefits, including research on brain plasticity and epigenetics. The authors further note that health benefits deriving from scientific research may involve either public health initiatives or individual treatments.

Antisocial personality and conduct disorder

In the second review, Blair & Mitchell (pp. 543–555) begin by noting how attention-based accounts of psychopathy have made relatively little reference to general models of attention in healthy individuals. Their review then proceeds to summarize existing neuroscience data on attentional systems and examine evidence for the functional integrity of these systems in those with psychopathy. The authors conclude by examining the implications of these findings for attention and emotion dysfunction accounts of psychopathy.

Lobbestael *et al.* (pp. 557–568) continue the theme of psychopathy. The authors investigated the emotional, cognitive and physiological correlates of anger in a sample of 21 patients with ASPD, 45 with borderline personality disorder, 46 with cluster C personality disorder, and 35 controls. The authors found no differences in self-reported anger. However, ASPD patients showed a decrease in heart rate and systolic blood pressure. In addition, ASPD patients who scored low on affective psychopathy reported less negative emotions and showed a decrease in diastolic blood pressure.

Davidson *et al.* (pp. 569–577) examined the feasibility and effectiveness of conducting a randomized

controlled trial (RCT) of cognitive behavioural therapy (CBT) *v.* treatment as usual for men with an ASPD ($n=52$) who had been aggressive in the previous 6 months. At 12-month follow-up (72% follow-up rate), there were no differences between the treatment and control groups, with both groups showing a reduction in acts of aggression. There were, however, trends in favour of CBT for reductions in problematic drinking, social functioning and beliefs about others. The authors conclude that a RCT is feasible, and that a larger trial is necessary to fully evaluate the effectiveness of CBT in this group.

Prom-Wormley *et al.* (pp. 579–590) investigated associations and interactions between low-activity monoamine oxidase A (MAOA), childhood adversity and conduct disorder (CD) in a sample of 721 females aged 8–17 years drawn from the Virginia Twin Study of Adolescent Behavioural Development. The authors found that low-activity MAOA was independently associated with risk of CD. A significant gene (high activity MAOA) \times childhood adversity interaction (with weak effect) was detected, but this was no longer significant when account was taken of the sample sizes exposed at each level of childhood adversity.

Depression and anxiety

In the first of three papers on various aspects of depression and anxiety, Uebelacker *et al.* (pp. 591–601) used methods based on item response theory to investigate whether, when equating for levels of depression symptom severity, there are differences by race, ethnicity and gender in likelihood of reporting DSM-IV depression symptoms. In a secondary analysis of data from the National Epidemiologic Survey on Alcohol and Related Conditions, the authors found few differences between groups and conclude that, broadly, men and women, and individuals of different racial and ethnic groups, respond similarly to the criteria used to diagnose major depression.

Reppermund *et al.* (pp. 603–614) examined cognitive performance in acute depression, after remission, and 6 months after remission in a sample of 53 patients with unipolar depression, initially assessed on admission to hospital. In acute depression, the authors found a number of impairments of information processing, memory and executive function. These cognitive impairments persisted in a high proportion of patients after remission, and severity of depression

was associated with only one cognitive measure. The authors conclude that these findings suggest cognitive impairments in depression have trait-like features.

Ramsawh *et al.* (pp. 615–624) investigated the course of anxiety disorders (panic, social phobia, generalized anxiety) over 14 years in a sample of predominantly middle-aged adults. The authors found that severity of disorder, assessed using weekly psychiatric status ratings, declined in all groups over time. There was evidence of an age \times time interaction for panic disorder and generalized anxiety disorder, with a greater reduction of severity in older groups over time.

Psychosis

Four papers examine various aspects of psychosis. In the first, Welham *et al.* (pp. 625–634) examined the antecedents of ‘screen-positive non-affective psychosis’ (SP-NAP) in a sample of 3801 young adults initially assessed at ages 5 and 14 years. The authors found that, at age 21 year, 60 individuals were classified as SP-NAP. In males, SP-NAP was associated with higher scores on a number of domains of the Child Behaviour Checklist and Youth Self Report questionnaire at ages 5 and 14 years. Associations were less clear for females. For males and females, hallucinations at age 14 years were associated with SP-NAP. Boys with high total scores were at greatest risk overall of SP-NAP.

Horan *et al.* (pp. 635–643) investigated disturbances in spontaneous attributions of social meanings, assessed using a validated Animations Task, in a sample of 55 out-patients with a diagnosis of schizophrenia and 44 healthy controls. The authors found that, compared with controls, patients had lower intentionality ratings in theory-of-mind and goal-directed, but not random, scenes. The authors further found that, compared with controls, the descriptions by patients of the animated scenes less closely matched the situations intended by the developers of the task. The authors conclude that patients demonstrated disturbances in the spontaneous attribution of mental states to abstract visual stimuli.

Kern *et al.* (pp. 645–654) examined difficulties in processing counterfactual information (sarcasm, lies), using The Awareness of Social Inferences Test (TASIT), in a sample of 50 patients with schizophrenia or schizoaffective disorder and 44 controls. The authors found that patients performed worse than controls on sarcasm but not lie scenes. Within-group comparisons showed that patients performed worse on sarcasm than on lie scenes, whereas controls performed comparably on both. Further, performance on

the TASIT was associated with positive but not negative symptoms.

Langdon *et al.* (pp. 655–663) compared the phenomenological qualities of inner speech between a group of 29 patients with schizophrenia who experience auditory verbal hallucinations and a group of 42 non-voice-hearing individuals. The authors found that the inner speech of the patients was almost identical to that of the non-voice hearers, and that the phenomenological quality of auditory hallucinations in the patient group did not relate to the corresponding qualities of inner speech.

Other topics

In the first of the final three papers, Archer *et al.* (pp. 665–673) investigated associations between mid-life neuroticism and age of onset of Alzheimer’s disease (AD) in a sample of 213 patients with probable AD. The authors found that mid-life neuroticism predicted younger age of onset in females, but not males, independent of a premorbid history of affective disorder. The authors conclude that this finding and its potential mechanisms warrant further investigation.

Beacher *et al.* (pp. 675–684) examined brain anatomy in 19 Down’s Syndrome (DS) adults with AD and 39 DS adults without AD, using volumetric magnetic resonance imaging (MRI). The authors found that DS adults with AD, compared with those without AD, had significantly smaller corrected volumes bilaterally of the hippocampus and caudate, and right amygdala and putamen, and a larger corrected volume of left peripheral cerebrospinal fluid. The authors conclude that DS adults with AD have significant medial temporal and striatal volume reductions, and that these may provide markers for clinical AD.

In the final paper, Faraone *et al.* (pp. 685–693) used assessments of personality to examine the validity of DSM-IV diagnostic criteria for adult attention deficit hyperactivity disorder in four groups of adults: (1) ADHD subjects who met DSM-IV criteria for childhood onset ($n=127$); (2) ADHD subjects who did not meet criteria for childhood onset ($n=79$); (3) sub-threshold subjects ($n=41$); and (4) controls ($n=123$). The authors found that both early and late onset ADHD subjects showed similar personality profiles with significant deviations on most Temperament and Character Inventory scales. Sub-threshold subjects showed fewer deviations. The authors conclude that these data challenge the use of the age-of-onset criterion for ADHD in adults when making retrospective diagnoses.

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