little is known about patterns of anxiety across this period. This study aimed to 1) assess patterns of anxiety and depression across pregnancy and the postpartum, 2) investigate associations between antenatal mood and HPA axis hormones and 3) determine the extent to which antenatal anxiety, depression and HPA axis activity predict postnatal mood disorders.
Methods: Participants were recruited antenatally as part of a prospective study undertaken at the Royal Hospital for Women, Sydney. Ninety-four women completed self-report measures of anxiety and depression at 30–32 and 36-38 weeks gestation, and at 6 months postpartum. They were also administered a structured diagnostic interview (MINI-Plus) at 36–38 weeks gestation and at 6 months postpartum to determine the presence of DSM-IV anxiety and depression. Blood samples were collected at 30–32 weeks gestation for bioassays of HPA axis hormones (CRH, ACTH and cortisol).
Results: The data indicate significant stability in maternal mood across pregnancy and the postpartum and associations between anxiety and depression were moderate-high at each assessment. Despite the stability of depression, an anxiety disorder in pregnancy appears to be a greater risk factor for a postnatal anxiety [odds ratio (OR) = 10.20, $P < 0.005$] or depressive disorder (OR = 7.90, $P < 0.005$) than antenatal depression. Antenatal neuroendocrine parameters were unrelated to either antenatal or postnatal anxiety or depression.
Conclusion: These results clearly highlight the importance of anxiety in both the pre- and postnatal periods.

Phenotypic correlates of the serotonin transporter gene

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Background: A genetic variation within the promoter region of the serotonin transporter (5-HTT) gene has been found to moderate the effect of stressful life events on onset of major depression (Caspi et al. 2003; Wilhelm et al. 2006). This paper examines for observable characteristics underlying the genetic liability to depression following stressful events associated with differing 5-HTT genotypes within two study samples.
Method: Study 1 – 'diabetes study'. Commencing in July 2006, patients presenting to a hospital-based diabetes clinic were recruited. Participants provided data on psychiatric diagnosis, personality traits (NEO) and coping styles (COPE), as well as provided saliva samples for genetic analysis. Study 2 – 'teachers cohort study'. Between 1978 and 1998, episodes of major depression, life events, coping behaviours and trait anxiety measures (EPQ, TCI) were recorded at 5 yearly intervals. In 2003, blood or saliva samples were collected for genetic analysis.
Results: Associations between the 5-HTT gene and candidate phenotypes (trait anxiety and coping styles) were examined using preliminary data from the diabetes sample (anticipated $n > 100$). For the teachers cohort study, no associations between the 5-HTT genotype and trait anxiety were found for those who provided genetic material ($n = 128$). There were, however, significant differences on the coping behaviours used by differing genotype groups when under stress.
Conclusions: These findings raise the possibility of a genetic disposition to emotional reactivity to stressors that may predispose individuals to use different coping strategies. Replication of these findings will be examined within the diabetes sample.

Clozapine and cardiotoxicity: echocardiography findings from Barwon Health

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Background: Clozapine continues to have a unique efficacy profile that to date has not been matched or enhanced by other second-generation antipsychotics. Although agranulocytosis is a well-documented vulnerability for these patients, other serious risks, such as myocarditis and cardiomyopathy, are less well recognized and there remains a dearth of examination in this area. The current study aims to investigate changes in cardiac functioning in a group of patients treated for the first time with clozapine.
Methods: Transthoracic echocardiograms were conducted on 77 clozapine-naïve patients, prior to commencing clozapine treatment (time 1) and were repeated after 6–12 months (time 2). Patient psychiatric and medication history were documented, as were full white blood count, troponin 1 and creatinine kinase results. The rate of clozapine titration was also recorded.
Results: Preliminary analyses of the data set indicate a decrease in left ventricular shortening, a measure of ventricular contractility, from time 1 (pre clozapine) to time 2. Further analyses will be presented.

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Conclusions: Although there appears to be a trend toward a worsening of cardiac function with clozapine treatment, further investigations need to be carried out taking into account confounding factors that are known to be implicated in cardiac dysfunction. Establishing a clearer understanding of the link between the two will help patients and clinicians balance the risk of cardiac problems and improved psychopathology and help to institute cardiac monitoring guidelines for patients treated with clozapine.

Gamma synchrony in first-episode psychosis

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Background: This project will compare gamma synchrony in 55 subjects with recent onset psychosis and 110 age-, sex- and education-matched controls. An auditory oddball and a visual working memory paradigms were used, to explore the hypothesis that disturbed 'binding' in psychosis is not limited to auditory processing.
Methods: The EEG data were analyzed using a measure of phase synchrony, described in detail elsewhere (Haig et al. 2000). There were two important differences in the present work. First, multiple frequencies were assessed, rather than simply 40 Hz. Second, a 512-ms fast Fourier transform window was used to estimate the phases at a given frequency, rather than 256 ms. This provided an improved frequency resolution (~2 Hz), at the expense of temporal resolution. The phase synchrony was estimated for six frequency bands between 35 and 45 Hz at 10-ms intervals.
Results: Multiple analyses of covariance (controlling for age) showed significant excesses of gamma synchrony in the psychosis group for both paradigms with different topographical distribution in each. In general, there were more marked differences in the auditory paradigm, a dominant frontal and left-sided abnormality in both, with elevated synchrony posteriorly in the visual paradigm.
Conclusion: Elevated synchrony in both paradigms supports the potential role of abnormal assembly formation as a generalized mechanism responsible for the production of psychotic symptoms.

Duration of untreated psychosis: the relative contribution of individual vs. community factors

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Background: Although some debate exists in the literature, there is a general consensus that patients with a longer duration of untreated psychosis (DUP) have poorer health outcomes than those treated early. Two recent meta-analyses have established this relationship as being of moderate effect size. Recent research has focused on reducing DUP through either a community approach or a 'at-risk' individuals approach. However, it is not currently established in the literature the relative contributions of individual vs. community factors predicting DUP.
Methods: The present study examined an existing research cohort of 456 Early Psychosis (EP) patients, from 19 mental health teams. The DUP of 326 of these patients had been assessed by the clinician. Multilevel modeling was used to establish the relative contribution of service level variables, and patient level variables.
Results: The initial null model showed that the service level accounted for 0.54% of potentially explainable variance in the total model; this was not significant (P = 0.36). The remaining 99.46% of variance was accounted for by the patient level. An exploratory analysis of individual factors showed that item 7 of the HoNOS (Depressed Mood) had a significant positive relationship to DUP (P = 0.01), while item 10 (problems with ADLs) had a negative relationship approaching significance (P = 0.06).
Conclusions: While other individual predictive relationships need to be tested, this study identifies depression as a candidate risk factor for prolonged DUP. Importantly, this research also highlights the central importance of individual factors over community factors in producing treatment delays.

Multimodal imaging of the mismatch negativity deficit in schizophrenia

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Background: Mismatch negativity (MMN) is an electrophysiological response to novel auditory stimuli. This project examines the developmental time course

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