after controlling for verbal memory. Patients with schizophrenia (d=-1.54, p<0.001) and DD (Cohen’s d=-0.60, p=0.002) showed significantly poorer performance than HC on the “Faux Pas Test,” after controlling for potential confounders. The difference between patients with schizophrenia and HC remained significant after controlling for neuropsychological functioning (Cohen’s d=-1.09, p<0.001), while differences between patients with DD and HC were no longer significant after controlling for executive function and working memory performance (Cohen’s d=-0.23, p=0.596). No significant differences were found between diagnostic groups in externalizing or personalizing attributional bias. In the fully adjusted models, intensity of the delusional idea was significantly associated with performance in the “Faux Pas Test” in DD, and with externalizing and personalizing attributional bias in schizophrenia. A positive history of CT was significantly associated with lower performance on the “Faux Pas Test” (Cohen’s d=-0.40, p=0.022) and higher delusional proneness scores in the delusional psychosis samples (Cohen’s d=-0.49, p=0.006), but not in HC. **Discussion:** Social cognition deficits are associated with delusional intensity in delusional psychoses. Childhood trauma could increase the risk of psychosis through its effect on social cognition.

**S81. METAMEMORY IMPAIRMENT ACROSS THE PSYCHOSIS TRAJECTORY: ASSOCIATIONS WITH SYMPTOM SEVERITY**

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**Background:** Schizophrenia is a psychiatric disorder characterized by a deficit in reality testing, most often manifest in the form of delusions and hallucinations. Because differentiating real from imagined experiences is critically dependent on episodic and associative memory, deficits in mnemonic processes could be involved in the genesis of impaired reality testing. Prior work has shown that individuals with psychosis exhibit impairment in metamemory, or, awareness and knowledge of one’s own memory and memory processes, and that these impairments may be relevant to the emergence and/or maintenance of psychotic symptoms. **Methods:** In the present study, we used a verbal associative memory paradigm incorporating subject confidence ratings to examine differences in metamemory processes in three separate samples: patients with chronic schizophrenia (CHR; n = 34), patients with recent-onset (first-episode) psychosis (n = 49), and individuals at clinical high risk for psychosis (n = 29) compared to control groups (n = 24, n = 26, and n = 22, respectively). We used an analysis of variance design to examine group differences in confidence gap and knowledge corruption between patients and controls. We further assessed the association of both of these metrics to symptom severity in each patient sample. **Results:** We found that both chronic and first-episode patients displayed significantly decreased confidence gap compared to healthy controls, with patients being more confident in incorrect memory retrievals and less confident in correct memory retrievals as compared to healthy controls. Additionally, compared to healthy controls, chronic patients and first-episode patients showed significantly increased knowledge corruption (the proportion of confident incorrect memory retrievals compared to all confident retrievals). While there were no group differences in confidence gap and knowledge corruption between CHR subjects and healthy controls, decreased confidence gap was significantly correlated with positive symptom severity in CHR subjects, as well as in first-episode subjects. **Discussion:** These findings suggest that underlying deficits in metamemory processes may possibly reflect mechanisms involved in the development and/or maintenance of disrupted reality testing in those with and at risk for psychosis.

**S82. REINFORCEMENT LEARNING IMPAIRMENT IN PATIENTS WITH EARLY-STAGE PSYCHOTIC BIPOLAR DISORDER**

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**Background:** Abnormal reward sensitivity is a biosignature to mood disorders spectrum. Recent data suggested either elevated or preserved positive but impaired negative reinforcement learning in patients with bipolar disorder. Functional MRI studies provided extra evidence on heightened reward sensitivity in manic patients. Of note, these investigations mostly rest on chronically ill samples, conditions of whom may have been confounded by prolonged exposure to medications. This study aims to examine reinforcement learning performance and its relationship with symptomology in patients with early-stage psychotic bipolar disorder (BDP).

**Methods:** This study is based on 38 patients with early-stage BDP (defined by having received psychiatric treatment for first-episode BDP within 3 years since service entry) who have been euthymic for at least eight weeks and 40 demographically-matched controls. Reinforcement learning performance was evaluated using Gain-vs-Loss-Avoidance Task (GLAT), which measured the correct responses in both gain and loss-avoidance pairs with reinforcement probability at either 90% or 80% across four blocks in the training phase and one block in the test/transfer phase. Comparison analyses on reinforcement learning performance were conducted on two groups. Associations of reinforcement learning measures with symptom scores, cognitive functions and functioning measures were also tested.

**Results:** There was no group difference in gender, age or education level. Repeated-measures analysis of variance (ANOVA) showed significant main effects of group (F=6.52, p=0.013), block (F=43.71, p<0.001), probability (F=5.58, p<0.001), and block x group (F=2.87, p=0.040) interaction. Post-hoc tests revealed that controls performed better than patients across blocks (p<0.05). Patients also showed a lower lose-shift rate (t=2.21, p=0.03) and punishment-driven learning accuracy rates (t=2.42, p=0.018) than controls. Marginally significant main effect of stimulus pair (F=3.98, p=0.05) was revealed in the test phase, with controls showing a significantly higher preference in Frequent Winner vs Frequent Loser (FWFL) pair than patients (t=2.25, p=0.028). No significant correlations between learning measures and any of the symptom dimensions in patient sample.

**Discussion:** Our preliminary findings provided a brief evidence on the negative reinforcement learning impairment in early-stage BDP patients. Further investigation is required to verify and confirm our results of impaired negative reinforcement learning in the initial course of bipolar disorder.

**S83. MORTALITY, REVASCULARIZATION AND CARDIOPROTective PHARMACOTHERAPY AFTER ACUTE CORONARY SYNDROME IN PATIENTS WITH PSYCHOTIC DISORDERS: A POPULATION-BASED COHORT STUDY**

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**Background:** Ischemic heart disease is the leading cause of premature mortality in psychotic disorders. The authors aimed to examine short-term mortality, cardiovascular complications, revascularization and cardioprotective medication receipt after incident acute coronary syndrome (ACS) among patients with psychotic disorders compared with patients without psychotic disorders.
Methods: This was a population-based cohort study with data retrieved from a territory-wide medical record database of public healthcare services to 7.5 million residents in Hong Kong. The study identified 67,692 patients aged ≥18 years admitted for first-recorded ACS between January 1, 2006 and December 31, 2016. The cohort was dichotomously divided by pre-ACS diagnosis of psychotic disorder. Multivariate regression (adjusted odds ratio [aOR] and 95%CI) was used to examine associations of psychotic disorders with all-cause 30-day and 1-year mortality, cardiovascular complications, 30-day and 1-year invasive cardiac procedures, and 90-day post-discharge cardioprotective medication prescription.

Results: Patients with psychotic disorders (N=703) had higher 30-day (aOR=1.99, 95%CI=1.65–2.39) and 1-year (aOR=2.13, 95%CI=1.79–2.54) mortality, and cardiovascular complication rates (aOR=1.20, 95%CI=1.02–1.41), lower receipt of cardiac catheterization (30-day: aOR=0.54, 95%CI=0.43–0.68; 1-year: aOR=0.46, 95%CI=0.38–0.56), percutaneous coronary intervention (30-day: aOR=0.55, 95%CI=0.44–0.70; 1-year: aOR=0.52, 95%CI=0.42–0.63) and reduced β-blockers (aOR=0.81, 95%CI=0.68–0.97), statins (aOR=0.54, 95%CI=0.44–0.66), and clopidogrel prescriptions (aOR=0.66, 95%CI=0.55–0.80). Effect of psychotic disorder on heightened mortality was more pronounced in younger-aged (<65 years) and male patients. Associations between psychotic disorder and increased mortality remained significant even after complications and treatment receipt were additionally adjusted.

Discussion: Psychotic disorders are associated with increased risks of short-term post-ACS mortality, cardiovascular complications and inferior treatment. Excess mortality is not substantially explained by treatment inequality. Further investigation is warranted to clarify factors for suboptimal cardiac-care and elevated mortality in psychotic disorders to enhance post-ACS outcome.

S84. EFFECTS OF COGNITIVE REHABILITATION AND ILLNESS DURATION ON VERBAL MEMORY AND LEARNING IN SCHIZOPHRENIA

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Background: Cognitive remediation has been associated with enhanced cognition and psychosocial functioning in schizophrenia (SCZ). We present the preliminary results of a naturalistic study using a Cognitive Rehabilitation Programme (CRP) in Athens, Greece. The programme includes 40 individual hourly sessions, having a frequency of at least 2 sessions per week. It has a cognitive exercises and a social cognition module and aims at improving social functioning through cognitive enhancement. The CRP is implemented at a specialized Unit of the Greek National Health Service which is located in the centre of Athens for patients with SCZ living in the community.

Methods: We analyzed the CRP effects on verbal learning and memory, for the first 47 patients with SCZ referred to the Unit who took part in a naturalistic study. We compared these effects with those from a control group of 8 patients with SCZ undergoing occupational therapy. We conducted seven linear regression analyses investigating the effects of the CRP on verbal learning parameters using the Hopkins Verbal Learning Test (HVLT) (immediate total recall-ITR, immediate recall at the three learning trials (IRLT1, IRLT2, IRLT3), delayed recall (DR), retention (RT), recognition (RC) controlling for the duration of illness (DOI). In these analyses the relevant HVLT post-treatment scores were the dependent variables and CRP (receipt or not) and DOI were the independent variables controlling for the effects of baseline HVLT scores.

Results: 47 patients with SCZ completed the CRP (15 women and 32 men, mean age=42.34 years-standard deviation/SD=11.69, mean DOI=18.27-SD=10.88), 8 patients (5 women and 3 men, mean age=54.5 years, SD=8.14, mean DOI=26.25, SD=10.63) participated in occupational therapy sessions of the same duration. Baseline HVLT scores strongly correlated with post-treatment scores in all analyses. CRP was associated with increased post-treatment HVLT total immediate recall scores (β=3.33, 95% Confidence Interval-CI=0.66, 6, t=2.5, df=49, p=0.016). DOI was associated with decreased post-treatment HVLT total immediate recall scores (β=-0.11, 95%CI=-0.2, -0.02, t=-0.25, df=49, p=0.015). Further analysis of the subjects’ performance in the three IRLTs revealed that the effect of CRP approached statistical significance in the IRLT1 (B=1.21, 95% CI=0.4–2.46, t=1.95, df=47, p=0.058). DOI was negatively associated with IRLT1 scores (B=-0.05, 95%CI=-0.09, -0.004, t=-2.23, df=49, p=0.022) and IRLT3 scores (B=0.05, 95%CI=0.1, -0.007, t=-2.3, df=48, p=0.026). The association of CRP and DOI with IRLT2 scores was not significant. DOI was negatively correlated with DR scores (β=-0.11, 95%CI=-0.16, -0.06, t=-4.38, df=49, p<0.001). Similarly, DOI was negatively associated with RT scores (B=-1, 95%CI=-1.67, -0.35, df=49, p=0.004). We failed to find any effect of CRP on DR and RT scores. The ANOVA Model for RC scores was not significant.

Discussion: We presented preliminary results of an ongoing naturalistic study. CRP was associated with improved immediate recall, after controlling for the effects of the DOI. However, we failed to find any association of CRP with other verbal learning and memory measures. DOI negatively affected immediate and delayed verbal memory and learning. Although the naturalistic design of our study supports its external validity, it also limits the interpretation of our findings. Due to its preliminary character, our study was underpowered. A future blind randomized trial recruiting more subjects could shed more light onto the effect of CRP on cognition and functioning in schizophrenia.

S85. MANAGEMENT OF PHYSICAL HEALTH FOR PEOPLE WITH SCHIZOPHRENIA IN PRIMARY CARE: A SYSTEMATIC REVIEW

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Background: We sought to determine how the physical health of people with schizophrenia is managed by family physicians in a primary care setting relative to those without schizophrenia.

Methods: A comprehensive literature search was conducted in three electronic databases for articles published in English up to January 2019. Studies were included if: (1) study design was observational; (2) population was patients receiving primary care from family physicians; (3) exposure was schizophrenia; (4) comparison was no schizophrenia; and (5) outcome was management of physical health condition. Study details, subject characteristics, methods, and results were extracted from each study and summarized in a qualitative manner. Risk of bias (RoB) for each study was assessed using the CLARITY tool.

Results: A total of 12 articles met inclusion criteria, including 9 retrospective cohort studies with low RoB and 3 case control studies with moderate RoB. Among patients with diabetes (5 studies), those with schizophrenia received lower rates of guideline-recommended monitoring. Among patients with cardiovascular disease (2 studies), those with schizophrenia received lower rates of guideline-recommended screening (e.g., serum cholesterol levels). Among patients at risk for cardiovascular disease (3 studies), those with schizophrenia received lower rates of guideline-recommended screening (e.g., Papanicolaou test).

Discussion: Physical health management is an ongoing concern for individuals living with schizophrenia. These individuals often receive poorer care of their physical health by family physicians when compared to individuals without schizophrenia.