

and also the kind of workplace-based assessments needed.” The time-effective and structured approach to learning, regular progress follow-up, as well as improved motivation to engage with the placement were further subthemes mentioned. Examples of subthemes emerging from theme two were lack of PS knowledge about the PSPDP, as well as lack of training and information for trainees. Participants commented that “supervisors really didn’t know what they were supposed to do” and that “the information [shared during induction] was outdated”. One example of subthemes from theme three was the need for additional training both for trainees and PSs. As one participant mentioned: “Training is required for supervisors (...) and for us as well to get really used to the system. Because it’s a good system if we know how to use it.”

**Conclusion.** To the best of our knowledge this is the first study exploring trainees’ views on the new PSPDP. Whilst trainees appreciated the potential benefits of working through the PSPDP together with their supervisor, significant challenges remained and may hinder its meaningful use. Our next steps are designing and running a hybrid questionnaire to gather views from a larger sample.

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### Edge-Centric Analysis of Time-Varying Functional Connectivity in Schizophrenia Using the COBRE Dataset

Dr Abigail Gee<sup>1,2\*</sup> and Sarah Morgan<sup>2</sup>

<sup>1</sup>Cambridgeshire and Peterborough NHS Foundation Trust, Cambridge, United Kingdom and <sup>2</sup>University of Cambridge, Cambridge, United Kingdom

\*Corresponding author.

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**Aims.** Differences in static and dynamic resting-state functional connectivity have been identified in patients with schizophrenia, individuals at high risk of psychosis and those with psychotic-like experiences. Analysis of dynamic connectivity is important to understand the temporal fluctuations in functional connectivity. Studies of dynamic functional connectivity have been conducted using methods such as the sliding-window technique and co-activation patterns (CAPs). In this study edge-centric analysis has been used to examine differences in time-varying connectivity in patients with schizophrenia compared to healthy controls. This method overcomes some of the limitations of other methods as it has higher temporal resolution and unwraps the data without applying additional modelling or requiring user-defined specification of parameters.

**Methods.** We analysed resting-state fMRI data from 67 patients with schizophrenia and 81 healthy controls using the Center for Biomedical Research Excellence (COBRE) dataset. The edge-time series for these subjects was calculated by omitting the averaging step when calculating the correlation between time series at each node. This effectively unwrapped the functional connectivity correlations and produced a measure of co-fluctuation at each timeframe. The edge time series can be aggregated into a single measure of dynamic whole brain co-fluctuation by calculating the root sum square (RSS). We analysed the frequency and amplitude of the high amplitude peaks of co-fluctuation and the patterns of activity seen during peaks and troughs.

**Results.** The results showed that mean peak amplitude was lower in patients with schizophrenia compared to controls (t-stat= -3.13,

p = 0.0021). Patients with schizophrenia also had significantly less frequent peaks (t-stat= -2.80, p = 0.0058). The pattern of activation at peaks in controls was more homogenous between control subjects compared to patients with schizophrenia. We identified networks that were significantly less activated in patients than in controls during peaks, troughs and transitional time points.

**Conclusion.** This study suggests that in patients with schizophrenia the whole brain co-fluctuations during resting-state are less frequent and lower in amplitude. This is in keeping with previous studies which have identified that patients with schizophrenia spend significantly less time than healthy controls in states of large-scale connectivity. Further studies looking at larger transdiagnostic samples and antipsychotic naïve patients will be important to build on these results.

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### Hypercalcaemia and Primary Hyperparathyroidism – an Underappreciated Contributor to Psychiatric Presentations

Dr Fatma Ghoneim\*, Dr Ivan Shanley and Dr Jennifer Ford

Essex Partnership University NHS Foundation Trust, Essex, United Kingdom

\*Corresponding author.

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**Aims.** Hypercalcaemia can lead to many neuropsychiatric symptoms from fatigue, lethargy, anxiety, irritability, and insomnia to impaired concentration and memory, depression, delirium, and psychosis. Primary hyperparathyroidism (PHPT), which is the most common cause of hypercalcaemia, is a relatively common disorder affecting 1 in 500 women and 1 in 2000 men aged over 40 years. A patient, with a diagnosis of Alzheimer’s disease, subtype mixed, had hypercalcaemia on admission which wasn’t corrected until 4 months of the admission had passed. Calcium correction precipitated a marked improvement in the patient’s mental state. In order to learn from this incident, an audit was carried out to look at possible gaps in performing blood tests, and how abnormal calcium levels can affect patients’ mental states.

**Methods.** Retrospective data collection was performed to obtain blood results for all patients -aged 40 years or above- admitted to inpatient wards in South Essex within a six month period (from April 2022 to September 2022). A total number of 333 patients (173 males and 160 females) were identified.

**Results.** Bone Profile was checked in 248 patients (127 males and 121 females). Twelve patients were found to have hypercalcaemia on admission - mean age 65.7 years, female: male ratio of 3:1. No patients were found to have hypocalcaemia.

Hypercalcaemia was addressed in only 2 of 12 patients. Parathyroid hormone (PTH) was tested either before or during admission to mental health services in 6 patients, PTH was found to be elevated (greater than 9.3 pmol/L) in 4 patients (2 males and 2 females), below the midpoint of the reference range in one patient, and below the lower limit of the reference range in one patient.

**Conclusion.** Patients with hypercalcaemia had different diagnoses - anxiety, depression, adjustment disorder, mania, psychosis, and dementia. It was the first admission for three patients with a mean age of 76 years. Six patients were known to services but it appeared that the recent admissions were associated with hypercalcaemia. Active management of