differences for developing diabetes between specific AP drugs were investigated. We used cox regression for all analyses, the latter adjusted for age, sex, year of schizophrenia diagnosis, Charlson Comorbidity Index (CCI), occupational status, marital status, education and schizophrenia severity (use of antipsychotics, antidepressants, anxiolytics/hypnotics/sedatives, mood stabilizers and number of psychiatric admissions in the year preceding the diagnosis of schizophrenia).
**Results:** We identified 31,856 patients with schizophrenia and 159,280 reference individuals. Patients with schizophrenia had an increased risk of developing diabetes compared with the reference individuals (unadjusted HRR: 3.12, 95%CI: 2.98-3.28). Treatment with AP in patients with schizophrenia, compared to periods with no AP use, was associated with an increased risk of developing diabetes (adjusted HRR: 2.04, 95%CI: 1.75-2.38). This risk was particularly increased among individuals treated with lurasidone (HRR: 2.66, 95%CI: 1.10-6.42), sertindole (HRR: 2.10, 95%CI 1.51-2.93), paliperidone (HRR: 1.84, 95%CI 1.47-2.31), clozapine (HRR: 1.74, 95%CI 1.49-2.03) and aripiprazole (HRR: 1.54, 95%CI 1.35-1.75), whereas treatment with zuclopenthixol (HRR: 1.00, 95%CI 0.82-1.23), flupentixol (HRR: 0.71, 95%CI 0.40-1.25) and pimozide (HRR: 0.74, 95%CI 0.31-1.78) were not associated with an increased risk of diabetes.
**Conclusions:** This real-world study indicates differences in the risk of developing diabetes between specific AP compounds. Further analyses will be presented at the conference.

**Disclosure of Interest:** None Declared

## O0139

## Violence and psychosis: Clinical evidences from an Early Intervention Program

O. Mentxaka[1,2,3], M. Recio-Barbero[2,3]*, E. Arana-Arri[4] and R. Segarra[1,2,3,5]

[1]Department of Psychiatry, Cruces University Hospital; [2]Early Stages of Psychosis Group, Biocruces Bizkaia Health Research Institute, Barakaldo; [3]Department of Psychiatry, University of the Basque Country, Leioa; [4]Scientific Coordinator, Biocruces Bizkaia Health Research Institute, Barakaldo and [5]Centro de Investigación Biomédica en Red de Salud Mental, CIBERSAM, Leioa, Spain
*Corresponding author.
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**Introduction:** Psychotic disorders are frequently linked to a public perception of dangerousness and propensity to engage in violent acts. Despite efforts to demystify these disorders, the evidence on the relationship between violence and psychotic disorders is mixed. Together with media coverage of violent crime associating violence with the occurrence of a mental disorder, such a situation has contributed to the social stigmatisation of people with severe mental disorders and the consequent discrimination that this scenario entails. Despite efforts to demystify such disorders, the association between violent behaviour and psychosis remains unclear.
**Objectives:** This study aims to explore the incidence and main clinical characteristics associated to violent offences recorded in a cohort of patients presenting a First-Episode Psychosis (FEP).
**Methods:** Patients presenting with an affective or non-affective first psychotic episode were recruited from the First Episode Psychosis Intervention Program (CRUPEP) cohort between 2009 and 2016. The main clinical variables were collected, including medical-forensic records of patients registered at the Basque Institute of Forensic Medicine (BIFM), to retrieve any violent acts in which patients with FEP were involved, either as victims or as offenders.
**Results:** Overall, 79.5% (n=182) of CRUPEP patients had no violent record of crime or offence recorded in the BIFM. Annual crime rates for the 2009–2016 period show a decreasing trend in both the general population (IRR=0.981 (95%CI=0.978–0.983) p<0.001) and in patients with FEPs (IRR=0.019 (95%CI=0.012–0.028) p<0.001); this pattern is more pronounced the FEP group. Victimisation accounted for the vast majority of reported incidents; nevertheless, patients who have committed violent offences were mostly involved in intrafamily violence
**Conclusions:** Patients with FEP were not involved in a higher number of crime rates than the general population. The types of violent acts committed by FEP patients were heterogeneous, with extreme violence being particularly uncommon.

**Disclosure of Interest:** None Declared

## O0140

## The neuroscience of formal thought disorder - the state of the art

E. Dornelles* and D. Telles-Correia

CLINICA UNIVERSITÁRIA DE PSIQUIATRIA E PSICOLOGIA MÉDICA, FACULDADE MEDICINA UNIVERSIDADE DE LISBOA, Lisboa, Portugal
*Corresponding author.
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**Introduction:** Even though the construct of Formal Thought Disorder (FTD) is an ambiguous and disputed one, it has endured as a fundamental psychopathological concept in the clinical coalface of Psychiatry. FTD can be summarized as a multidimensional concept, which reflects difficulties or idiosyncrasies in thought, language, and communication in general. It is usually subdivided into positive versus negative and objective versus subjective, and it can be a major challenge for both mental health professionals and patients themselves.
**Objectives:** In this presentation, we aim to explore the latest neuroscientific findings regarding FTD and its putative neurobiological substrate, ranging from the synaptic and neurotransmitter level to the structural and functional one, briefly considering some of the linguistic and neuropsychological implications.
**Methods:** We conducted a thorough narrative review by researching the Pubmed database using the following search string: "formal thought disorder"[Title/Abstract] and selecting only those articles published after 2010. Afterwards, we summarized the main findings from the gathered information.
**Results:** Some of the most consistent findings in current meta- and mega-analyses of structural MRI studies in patients with schizophrenia and FTD are volume reductions of regional grey matter in the frontal operculum and the language-related lateral temporal cortices, namely the left superior temporal gyrus and middle temporal gyrus. Another consistent finding is the so-called reversed lateralization of the temporal cortices. Regarding functional MRI studies of FTD, amongst the most common implicated regions are the bilateral superior and middle temporal gyri, the fusiform gyrus and the inferior frontal gyrus. Alterations in the glutamatergic,

dopaminergic and serotoninergic neurotransmitter systems have also been linked to FTD.
**Conclusions:** Many areas of the brain have been implicated in the pathogenesis of FTD, though some more consistently than others. The superior temporal, middle temporal and inferior frontal gyri in particular have repeatedly revealed both structural and functional alterations in patients with FTD. A reversed lateralization has also been observed at both structural and functional levels. The different neurotransmitter systems have also been connected with FTD, with the glutamate system being the one more thoroughly explored. However, the direction of causality between changes in the brain and FTD, and the influence of potential mediators remain largely unknown.

**Disclosure of Interest:** None Declared

## O0141

## Transdiagnostic and Disorder-Specific Resting-State Functional Network Alterations in Alcohol Use Disorder, Schizophrenia, Bipolar Affective Disorder and Obsessive-Compulsive Disorder

P. A. Khadse[1]*, B. Holla[2], V. G[2], J. P. John[2] and V. Benegal[2]

[1]Department of Psychiatry, Jawaharlal Nehru Medical College, Datta Meghe Institute of Higher Education and Research, Wardha and [2]Department of Psychiatry, National Institute of Mental Health and Neurosciences, Bangalore, India
*Corresponding author.
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**Introduction:** The ICD and DSM diagnostic categories do not represent entirely distinct entities because several cognitive impairments are shared across psychiatric disorders. Such shared cognitive impairments are hypothesized to be caused by common neurobiological substrates, one of which is transdiagnostic alterations in functional network connectivity (FNC).
**Objectives:** To investigate and compare the within-network functional connectivity (WNFC) and between-network functional connectivity (BNFC) in alcohol use disorder (AUD), schizophrenia (SCZ), bipolar affective disorder (BPAD), obsessive-compulsive disorder (OCD) and healthy controls (HC) using resting-state fMRI employing a data-driven exploratory approach.
**Methods:** The current study was a secondary analysis of data from the ADBS project in India. After pre-processing of fMRI data, a spatially and temporally constrained group-independent component analysis in the GIFT toolbox was performed using the NeuroMark templates to generate 53 independent components (ICs). These components were divided into seven functional domains including subcortical (SC), auditory (AU), sensorimotor (SM), visual (VI), cognitive-control (CC), default-mode (DM), and cerebellar (CB). To investigate the FNC correlations associated with group status (patients or HC) univariate models were applied which were subjected to corrections for multiple comparisons at an alpha=0.05 significance level using the FDR.
**Results:** The overall sample size was 249 [AUD=35, SCZ=44, BPAD=48, OCD=53, and HC=69]. Transdiagnostic WNFC alterations largely involved dysconnectivity in the CC, DM, and SC domains, resulting in ICs with both increased and decreased WNFC. Transdiagnostic BNFC alterations were primarily in the form of increased connectivity of the SC domain with various cortical domains whereas reduced connectivity was noted between AU, VI, SM, and CB domains. There was AUD-specific hyperconnectivity in the CC domain and SCZ-specific hyperconnectivity in the DM domain, and dysconnectivity in the SC domain. BPAD-specific hyperconnectivity was identified in DM and SC domains in addition to increased connectivity between CB and SM domains and decreased connectivity between CB and SC domains. All results were significant at $p \leq 0.05$; [FDR] $q = 0.05$.
**Conclusions:** Our transdiagnostic WNFC alterations corresponded to the central executive network, default mode network, salience network, and CSTC loop, which provided transdiagnostic evidence for the triple network model of psychopathology and underlined the relevance of subcortical dysconnectivity in this model. Furthermore, our BNFC changes showed subcortical hyperconnectivity with many cortical networks, underscoring its relevance as a potential target for transdiagnostic therapeutic interventions.

**Disclosure of Interest:** None Declared

## O0142

## Alterations in brain myelination at early-stage schizophrenia detected by macromolecular proton fraction MRI

E. Krupina[1]*, A. Manzhurtsev[2,3,4], M. Ublinskiy[2], O. Bozhko[2], G. Mamedova[5], V. Ushakov[1,5,6], N. Zakharova[5], V. Yarnykh[7], D. Andreyuk[5], M. Shlyapnikov[5], G. Kostyuk[5] and T. Akhadov[2]

[1]National Research Nuclear University MEPhI; [2]Clinical and Research Institute of Emergency Pediatric Surgery and Trauma; [3]Emanuel Institute of Biochemical Physics of the Russian Academy of Sciences; [4]Moscow State University; [5]Psychiatric Clinical Hospital 1 named N.A. Alekseev.; [6]Institute for Advanced Brain Studies, Moscow State University, Moscow, Russian Federation and [7]Radiology at the University of Washington, Seattle, United States
*Corresponding author.
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**Introduction:** There is evidence that cerebral myelination is impaired in schizophrenia. The purpose of this study is to find the myelin content changes in the brain structures of patients with early-stage schizophrenia using the macromolecular proton fraction (MPF) method, and also to evaluate the differences in the myelination of these structures.
**Objectives:** To measure MPF in the brain structures of schizophrenia patients
**Methods:** Forty-five subjects, 22 controls (10m+12f, 31.6±9.7 y.o.) and 23 schizophrenia patients (F20.0, 11m+12f, 31.5±5.1 y.o.). Philips Achieva dStream 3T MRI scanner, standard head coil. The magnetization transfer (TR=20 ms, TE=4.60 ms, FA=10°), T1-weighted (TR=20 ms, TE=4.60 ms, FA=20°) and PD-weighted (TR=20 ms, TE=4.60 ms, FA=4°) were acquired. The MPF maps were reconstructed using home-made software. In FSL, non-brain structures were removed and MPF maps were registered to a standard MNI152 1 mm atlas. Harvard Oxford Cortical and Subcortical atlases were used to select areas of interest. T-test was used in search for between-group differences.
**Results:** A 3% decrease in myelination in schizophrenia was observed in whole cerebral cortex $p = 0.03$) and cerebral white matter (p=0.02). Trends to cortical demyelination were found: