

**Conclusions:** Both PANSS cognition factors show a moderate correlations with Speed of processing, Working memory, Attention/Vigilance and Verbal Learning assessed by MCCB. More discrete correlations were found with Visual Learning, Reasoning and Problem Solving, and with Social cognition (in fact, non-significant correlation with Wallwork's cognitive factor was found).

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**Disclosure of Interest:** None Declared

## EPP0467

### The polymorphism ZNF804A rs1344706 is differentially associated with negative symptoms domains in schizophrenia

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**Introduction:** Negative symptoms (NS) are an important clinical characteristic of schizophrenia. In recent years, clinical research on NS has focused on their clinical heterogeneity. Based on two-factor analysis, it has been proposed to divide NS into abulia-apathy (AA) and expressive deficit (ED) domains. A number of studies have shown that these domains have different effects on the clinical features of schizophrenia, which suggests different pathophysiological mechanisms of their development. Neurobiological differences between AA and DE have been identified in neuroimaging and immunological studies but there is less research on the genetic background of NS.

**Objectives:** To search for an association between the rs1344706 polymorphism of the zinc finger protein gene (ZNF804A) and the AA and ED subdomains. The rs1344706 polymorphism is one of the best-supported risk variants for schizophrenia. The risk genotype AA has been shown to be associated with clinical presentations of the disease.

**Methods:** The study included 1116 (741 (66.3% women) patients with schizophrenia. The diagnosis was made according to ICD-10 criteria (item F20). The average age of the patients was 38.4 (13.6) years, age at disease onset was 26.1 (10.6) years. NS were assessed with the PANSS. The PANSS-derived AA domain consisted of Emotional withdrawal (PANSS item N2), Apathetic social withdrawal (N4), Active social avoidance (G16). The DE domain included Blunted affect (N1), Poor rapport (N3), Lack of spontaneity (N6), Mannerism and posturing (G5), Motor retardation (G7), Disturbance of volition (G13). Genotyping of the ZNF804A rs1344706 polymorphism was carried out using HRM-PCR. ANOVA with genotype and sex as independent variables, and age at the time of disease manifestation and its duration as covariates was used. Post hoc tests were performed using Bonferroni correction.

**Results:** A significant effect of the rs1344706 polymorphism on the severity of symptoms in the AA domain was revealed ( $F=5.88$ ,  $df=2$ ,  $p=0.002$ ). In carriers of the CC genotype, the severity of symptoms

was significantly lower than in carriers of the AA genotype and the AC genotype (8.4(3.5), 9.4(7.4) and 8.8(3.5) points, respectively). This effect was independent of sex and was not mediated by age at onset or duration of disease. There was no effect of the rs1344706 polymorphism on the severity of symptoms in the ED domain.

**Conclusions:** The association of the ZNF804A rs1344706 (A/C) polymorphism with NS of schizophrenia has not been reported so far though some studies have found the effect of this polymorphism on PANSS positive symptoms and PANSS total score. The finding of the association with NS can be explained by the fact that the NS heterogeneity was taken into account in the present study.

**Disclosure of Interest:** None Declared

## EPP0468

### Rates of perinatal environment risk factors in schizophrenia patients with higher and lower schizophrenia polygenic risk scores

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**Introduction:** Understanding the relations between genetic (G) and environmental (E) factors in the development of schizophrenia is important for psychosis prevention. These relations may vary from G x E correlations to G x E interactions and independent additive effects of genetic load and environment. The G x E interactions mean that genetic variants associated with schizophrenia make an individual vulnerable to specific environmental exposures thus enhancing the risk of disease manifestation in those who possess such genetic variants. In the case of independent effects, environmental exposure might serve as the main cause or an additional to genetic load external trigger which is needed for the illness development. Thus, the rate of independent environmental risk factors is expected to be higher in patients with a lower genetic liability to schizophrenia.

**Objectives:** The study aimed to confirm this hypothesis by comparing schizophrenia patients with higher and lower polygenic risk scores for schizophrenia (SZ-PRS) on the rate of urbanicity, winter birth and obstetric complications (OC), as previous data suggested their independence from the genetic burden of the disease.

**Methods:** SZ-PRS were calculated for 861 patients with schizophrenia spectrum diagnoses (ICD-10, F2), predominantly of Slavic decent, based on the latest GWAS. For patients comprising the highest and lowest SZ-PRS deciles, information on the environmental risk factors was extracted from medical records. Each environmental factor was coded as present/absent. The presence were defined as being born in the most urban environment (a city's population > 5 million), in winter months and having at least one OC from a predefined list (Alfimova *et al.* Int J Mol Sci 2022; 23: 12629). In addition, hypoxia/asphyxia, and low birth weight were analyzed separately. Polyenvironmental risk scores (PERS) aggregating the three factors were calculated using natural logarithms of the odds ratios (OR) from an umbrella review (Radua *et al.* World

Psychiatry 2018; 17: 49-66). Logistic regression adjusted for ancestry-related principal components, demographic, and technical variables was applied to compare the SZ-PRS deciles on each factor and PERS.

**Results:** None of the factors alone or PERS predicted SZ-PRS decile membership.

**Conclusions:** The results did not support the hypothesis. Future research needs reliable data on the frequency of the studied factors in the general population where the patients come from. The study was supported by the Russian Science Foundation, grant no. 21-15-00124.

**Disclosure of Interest:** None Declared

## EPP0469

### Clinical, psychological and brain imaging investigation of first episode psychosis patients treated at Semmelweis University, Department of Psychiatry and Psychotherapy, Budapest, Hungary

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**Introduction:** First episode psychosis (FEP) is the first manifestation of psychotic disorders lasting at least one week, but not longer than 2 years, causing personal suffering and decreased functional outcome of patients. The early intervention in FEP is crucial. Published results on early intervention programmes indicate that during the first 5-10 years relapse prevention and functional outcomes can be improved and mental health care costs can be reduced, compared to treatment as usual.

**Objectives:** Our objective was to examine FEP patients at the Department of Psychiatry and Psychotherapy. Our aim was to create a homogeneous sample and identify factors that can help in early differential diagnosis and therapy. Our goal was to compare the neuropsychological performance and MRI results of patients and healthy controls.

**Methods:** Male and female inpatients hospitalized at our department due to a first psychotic episode and consenting to participate were included, since 2019 October. Cases with drug induced psychosis and organic background in the etiology of the psychotic episode were excluded. Male and female healthy controls were matched by age and education. Including healthy controls is still in progress. The duration of the project is 36 months, 24 months for recruiting patients and healthy controls, 12 month for analyzing data. The investigation includes detailed clinical, neuropsychological examination (baseline, 6th, 12th, 18th, 24th month) and MRI (baseline and in the 24th month).

**Results:** Forty patients and sixteen healthy controls were included. 60% of the patients were rehospitalized due to relapses. Neuropsychological tests (RBANS, faux pas, Baron-Cohen eyes test) indicate cognitive dysfunction compared to healthy subjects. Using resting state fMRI second level analysis we found alterations in thalamo-cortical connectivity. We found significant differences in the connectivity of the thalamus and frontal lobe, postcentral gyrus, insula and cerebellum.

**Conclusions:** Our FEP research, although limited by the COVID-19 pandemic, shows promising results that can help in better understanding of the underlying factors of psychotic disorders.

**Disclosure of Interest:** None Declared

## Addictive Disorders

### EPP0472

#### New drugs in the treatment of dual psychosis: use of cariprazine in schizophrenia, other psychotic disorders and use of cocaine. A case series in a specific outpatient psychiatric clinic for substance use disorders.

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**Introduction:** New drugs in the treatment of dual psychosis: use of cariprazine in schizophrenia, other psychotic disorders and use of cocaine. A case series in a specific outpatient psychiatric clinic for substance use disorders.

**Objectives:** The main objective of this case series is to observe and describe the tolerability and clinical response to different doses of cariprazine in a series of patients with dual psychosis, specifically cocaine users; with a special attention upon psychotic symptoms, disruptive behaviour, affective symptoms and cocaine use pattern.

**Methods:** This series consists of an observation of a total of 20 patients treated on an outpatient basis. All of them had a either a diagnosis of Schizophrenia or Other Non Specified Psychotic Disorder meeting the DSM-5 criteria, as well as a Cocaine Use Related Disorder meeting the DSM-5 criteria. All of them received treatment with cariprazine in different doses from 1,5mg to 6mg per day, as a solo treatment or as an adjuvant to another previous antipsychotic treatment when antipsychotic augmentation was justified. We observed patients that had started cariprazine in the past three months and that had active drug use or had had one in the past three months.

We monitored the tolerance to the treatment, the clinical response in terms of positive and negative symptoms of schizophrenia, affective symptoms, disruptive behavior, and the response in terms of substance use; for a period of six months of follow-up, with psychiatric consultation at least every month and nurse consultation every two weeks in our clinic.

**Results:** 95% of the patients did not present any side effect related to cariprazine. In one patient (5%) the treatment had to be stopped due to akathisia that did not disappear after two weeks and symptomatic treatment with benzodiazepines. 60% of patients either stopped using (50%) or reduced their use frequency (50%). 70% of the patients presented an improvement in positive symptoms and behavior. Also, one third of them presented a slight improvement in negative symptoms. 20% of patients referred a significant improve in depressive symptoms.