

and the Global Assessment of Functioning (GAF). Spearman's correlation coefficients and multiple linear regression analysis were carried out. Specifically, the PANSS "Disorganization" dimension included 8 PANSS items: "Conceptual Disorganization", "Difficulty in Abstract Thinking", "Stereotyped Thinking", "Mannerisms and Posturing", "Disorientation", "Poor Attention", "Disturbance of Volition" and "Preoccupation".

**Results:** At baseline, the PANSS "Disorganization" dimension score had significant positive correlations with all other PANSS factor subscores, as well as significant negative correlation with the GAF score. The statistically strongest association was with the PANSS "Negative" domain score. Along the 2-year follow-up period, a significant decrease in the PANSS "Disorganization" dimension subscore was observed. This reduction was related to score decreases in all the other PANSS domains (especially the "Negative" one) and an increase in GAF scores. Furthermore, decreases in PANSS "Disorganization" dimension scores showed a significant positive correlation with the total number of individual psychotherapy sessions provided to FES patients during the first year of the Pr-EP protocol (also confirmed by our multiple linear regression analysis results).

**Conclusions:** Disorganization is clinically relevant in FES patients, already at the recruitment within specialized EIP programs. In particular, disorganized dimension in FES had significant enduring associations with functioning deterioration and negative symptoms. However, improvement in disorganization levels seems to be due to the intensity of individual psychotherapy sessions offered to FES individuals in the first year of intervention within specific EIP programs.

**Disclosure of Interest:** None Declared

## EPP0665

### Impact of adapted physical activity on hippocampal N-Acetyl Aspartate in patients with schizophrenia

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doi: 10.1192/j.eurpsy.2023.961

**Introduction:** Adapted physical activity (APA) has beneficial neurobiological impact but the underlying pathophysiological mechanisms remain poorly described. APA is currently recognized as an adjuvant therapy to antipsychotic treatments in patients with schizophrenia (SCZs) to reduce the severity of negative symptoms and cognitive impairment. SCZs exhibit hippocampal N-acetylaspartate (NAA) reduction, a marker of neuronal viability and integrity whose concentrations can be assessed by proton magnetic resonance spectroscopy (<sup>1</sup>H-MRS).

**Objectives:** The purpose of this study was to evaluate the impact of remote physical activity (e-APA) via the web on the NAA relative

variations in the left hippocampus in SCZs compared to a patient control group benefiting from an health education program (HE). This study concerns one of the secondary objectives of the PEPsy V@SI study co-financed by the Pierre Deniker Foundation, the European Union and the Normandy Region within the framework of the FEDER/FSE 2014-2020 operational program.

**Methods:** Thirty-five SCZs were randomized in the e-APA active group or in the control group (HE). Participants received the interventions during 16 weeks, with two visioconference sessions per week. A <sup>1</sup>H-MRS sequence positioned on the left hippocampus (MRI-3T) was acquired before and after both interventions. Absolute NAA concentrations in the left hippocampus were obtained using Osprey software after partial volume correction. After checking the quality criteria, the spectra of 6 SCZs in the e-APA group and 8 SCZs in the HE group were analyzed. To test the difference between interventions on the NAA relative variations, a Wilcoxon-Mann-Whitney test and effect size were performed. Paired Wilcoxon tests were used in each group before and after the interventions.

**Results:** No significant difference was found in NAA relative variations in the left hippocampus between the e-APA group and the HE group ( $p = 0.18$ ), although the effect size was 0.38 (considered as moderate). However, a trend towards an increase of NAA was observed in the e-APA group (before intervention: 12.08 International Units (I.U); after: 13.81 I.U) ( $p = 0.06$ ) but not in the HE group (before intervention: 13.75 I.U; after: 13.85 I.U) ( $p = 0.84$ ).

**Conclusions:** Our results showed a NAA significant increase in SCZs after an e-APA program, indicating a beneficial impact of e-APA on neuronal viability that might reflect an hippocampal plasticity. However, this increase did not differ significantly between active and control groups probably due to a weak statistical power.

**Disclosure of Interest:** L. Metivier: None Declared, F. Briend: None Declared, M. Tréhout: None Declared, L. Bigot: None Declared, G. Quarck: None Declared, A. Herbinet: None Declared, E. Leroux: None Declared, S. Dollfus Consultant of: Fabre, Gedeon, Roche and Takeda, invited Conferences by Lundbeck, Otsuka, Janssen; at contracts with Prophase MedAvances and NeuroCogTrials

## EPP0666

### Capgras and Fregoli syndromes revisited through six different psychiatric clinical cases

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doi: 10.1192/j.eurpsy.2023.962

**Introduction:** Capgras and Fregoli syndromes are delusional misidentification syndromes, characterized by a belief in duplicates and replacements. Capgras delusion was first described by Capgras in 1923, reporting a belief that a person (usually a close relative) has been replaced by an exact double (imposter). On the other hand, Fregoli Syndrome was first described by Courbon and Fail in 1927, and holds a delusion that a familiar person is disguised as a strange

person. Several explanatory models have been hypothesized, through myths, psychoanalytical and psychological interpretations, as well as neurobiological explanations.

**Objectives:** Through six different clinical cases and a narrative review, we aim to revisit the concepts of Capgras and Fregoli syndromes, emphasizing their complexity and heterogeneity.

**Methods:** We conducted a non-systematic review of recent evidence on Capgras and Fregoli syndromes and expose exemplary clinical cases.

**Results:** Capgras and Fregoli syndromes are complex psychotic experiences involving a great number of brain areas, with many heterogeneous clinical manifestations and comorbidities. Even though they were initially encompassed in pure psychotic disorders, today they are mainly understood as neurological disorders, in which the delusion primarily results from organic brain lesions or degeneration. Nevertheless, we present several distinct clinical cases with psychiatric diagnoses that include these curious phenomena: a 39-year-old man with schizophrenia; a 67-year-old woman with late-onset schizophrenia; a 24-year-old woman with schizoaffective disorder; a 48-year-old woman with first episode of acute and transient psychotic disorder; a 76-year-old woman with psychotic depression; and a 25-year-old woman with psychosis and intellectual development disorder.

**Conclusions:** Our review highlights the complexity of the delusional misidentification syndromes. We expose different patients with different psychiatric diagnosis, showing the diversity of pathologies in which these syndromes can fit. Although they seem to be very common in non-psychiatric disorders, little is known about the prognosis and response to treatment or whether there are systematic differences between delusional misidentification syndromes associated with “functional” and “organic” disorders, which should encourage further studies in order to address this gap and provide appropriate care.

**Disclosure of Interest:** None Declared

## EPP0667

### Alteration of plasma phospholipids distinguish schizophrenic patients from controls: A targeted metabolomics study

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doi: 10.1192/j.eurpsy.2023.963

**Introduction:** Schizophrenia (SCZ) is one of the most severe mental disorders. Several elements involved in pathogenesis have been characterized recently. However, tools for diagnosis and risk prediction are limited. Elucidation of the underlying genomic and molecular mechanisms of SCA remains a challenge.

**Objectives:** In this study, we aimed to identify plasma biomarkers for SCZ using targeted metabolomics.

**Methods:** All enrolled patients were drug-free for at least 3 months prior to admission. Plasma from 31 SCZ patients and 70 matched controls were analyzed using the LC/MS- Api 4000 QTrap Sciex. A total of 188 targeted metabolites, including 21 amino acids, 21 biogenic amines and 145 lipids or lipid-related metabolites were analyzed. All data modeling and analysis is done using MetaboAnalyst 5.0

**Results:** There was no significant difference in the studied groups regarding BMI. Plasma Triglycerides, LDL-C, total proteins levels were significantly decreased in SCZ compared to controls. Heatmap identified 2 clusters with 25 significantly differentially expressed metabolites (FDR <0.05) between the drug-naïve group and the matched controls. The OPLS-DA score plot showed that the groups are clearly separated according to plasma phospholipids concentrations. Among these differential metabolites, the expression level of very long chain Phosphatidylcholines (PC 36 – PC p42) and acylcarnitines were significantly decreased in SCZ compared to controls, whereas sphingomyelin (SM) and lysoPC were significantly lower in drug-naïve patients.

**Conclusions:** In this study, we found that plasma phospholipids were significantly dysregulated in the SCZ patients and could be a promising pathway to explore SCZ.

**Disclosure of Interest:** None Declared

## EPP0668

### Primary caregiver Reports of Patient-Initiated and Suffered Violence in Schizophrenia: A cross-sectional study in Tunisia

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doi: 10.1192/j.eurpsy.2023.964

**Introduction:** Aggressive behavior in psychosis is not uncommon. Studies found that among the patients with schizophrenia engaged in violence, more than half committed violence directly against family members. However, few studies have explored violence victimization and perpetration among caregivers of patients with schizophrenia.

**Objectives:** Our study investigated caregiver reports of aggressive acts committed or suffered by their relative with schizophrenia

**Methods:** This is a cross-sectional study among caregivers of patients with schizophrenia during the period from June to August 2022. Patients who attended our department of psychiatry at the Razi. The questionnaire was divided into three sections.

The first section: contained items regarding patient and caregiver-related information.

The second section: caregivers were asked questions about their experience of violence perpetration and victimization involving their relative with schizophrenia in the past 12 months. Beyond frequency, caregivers were also asked to specify, the causes of the violence perpetrated and suffered.

The third section contained two measures: The Depression Anxiety and Stress Scales (DASS-21) and the abridged version of the Zarit Burden Interview (ZBI), assessing psychological distress and caregiving burden, respectively.