

**Objectives:** With the hypothesis of similar impairments in schizophrenia and 22q11DS, to investigate a possible correlation between Social Cognition (SC) and Interpersonal Functioning (FU).

**Methods:** Sample consists of 1735 adults: 893 schizophrenic subjects (SCZ); 18 with 22q11.2DS and psychosis (DEL\_SCZ); 44 22q11.2DS individuals (DEL); 780 healthy controls (HC). SCZ and HC data come from a multicentric study by Network for Research on Psychoses. SC was assessed with The Awareness of Social Interference Test (TASIT, consisting of three sections: T1=Emotion Recognition; T2=Minimal Social Inference; T3=Social Inference Enriched). The Specific Levels of Functioning (SLOF) interview was employed.

**Results:** DEL\_SCZ ( $p<0.001$ ) and SCZ ( $p<0.001$ ) showed impairments in each TASIT sections compared to HC. Significant deficits in interpersonal functioning area were found in SCZ ( $p<0.001$ ) compared to HC. The interpersonal functioning domain showed a positive correlation with SC in HC (T1:  $r=0.097$ ;  $p<0.001$ ; T2:  $r=0.120$ ;  $p=0.001$ ; T3:  $r=0.121$ ;  $p=0.001$ ); DEL (T1:  $r=0.380$ ;  $p=0.024$ ; T2:  $r=0.466$ ;  $p=0.005$ ) and SCZ (T1:  $r=0.113$ ,  $p=0.001$ ; T2:  $r=0.110$ ,  $p=0.001$ ; T3:  $r=0.134$ ;  $p<0.001$ ).

**Conclusions:** SC deficits both in subjects with 22q11.2DS and in people with schizophrenia suggest a role of endophenotypes. SC is directly correlated to interpersonal functioning in 22q11.2DS without psychosis and people with schizophrenia. DEL\_SCZ may suffer from deeper cognitive and symptomatic conditions that both impact differently on FU.

**Keywords:** 22q11.2 Deletion Syndrome; social cognition; schizophrenia; Real life functioning

## EPP1246

### Investigation of electrophysiological markers to predict clinical and functional outcome of schizophrenia using sparse partial least square regression

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doi: 10.1192/j.eurpsy.2021.1446

**Introduction:** Despite innovative treatments, the impairment in real-life functioning in subjects with schizophrenia (SCZ) remains an unmet need in the care of these patients. Recently, real-life functioning in SCZ was associated with abnormalities in different electrophysiological indices. It is still not clear whether this relationship is mediated by other variables, and how the combination of

different EEG abnormalities influences the complex outcome of schizophrenia.

**Objectives:** The purpose of the study was to find EEG patterns which can predict the outcome of schizophrenia and identify recovered patients.

**Methods:** Illness-related and functioning-related variables were measured in 61 SCZ at baseline and after four-years follow-up. EEGs were recorded at the baseline in resting-state condition and during two auditory tasks. We performed Sparse Partial Least Square (SPLS) Regression, using EEG features, age and illness duration to predict clinical and functional features at baseline and follow up. Through a Linear Support Vector Machine (Linear SVM) we used electrophysiological and clinical scores derived from SPLS regression, in order to classify recovered patients at follow-up.

**Results:** We found one significant latent variable ( $p<0.01$ ) capturing correlations between independent and dependent variables at follow-up (RHO=0.56). Among individual predictors, age and illness-duration showed the highest scores; however, the score for the combination of the EEG features was higher than all other predictors. Within dependent variables, negative symptoms showed the strongest correlation with predictors. Scores resulting from SPLS Regression classified recovered patients with 90.1% of accuracy.

**Conclusions:** A combination of electrophysiological markers, age and illness-duration might predict clinical and functional outcome of schizophrenia after 4 years of follow-up.

**Keywords:** schizophrenia; EEG; Outcome prediction

## EPP1247

### Resting-state functional connectivity of the ventral tegmental area and negative symptom domains in subjects with schizophrenia

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doi: 10.1192/j.eurpsy.2021.1447

**Introduction:** Negative symptoms (NS) represent a core aspect of schizophrenia with a huge impact on real life functioning. Dysfunctions within the dopaminergic cortico-striatal circuits have been documented in subjects with schizophrenia (SCZ) and hypothesized as possible neurobiological mechanisms underlying some domains of NS.

**Objectives:** We investigated relationships between the resting-state functional connectivity (RS-FC) of the ventro-tegmental area (VTA) and NS.

**Methods:** Resting-state fMRI data were recorded in 35 SCZ, recruited within the Italian Network for Research on Psychoses. We performed partial correlations between RS-FC and NS (evaluated with the Brief Negative Symptom Scale) controlling for possible sources of secondary negative symptoms.