we considered these two groups, we found an interaction of the time of assessment by increased/decreased trajectory in the prediction of memory performance (p = .001).
Discussion: Although we did not find differences between baseline and follow-up assessments, we found two different groups with diverse trajectories. The most recent studies in SZ have discussed the existence of these subgroups in the disorder. Our results didn't showed evidence of impacts of both neurodevelopment or neuroprogression theories, the limited sample size may have influenced this. However, the two moment of assessment were with more than 10 years after the disease onset, adding to the compelling evidence that most of the cognitive deficits occur during early stages of the disorder.

T52. COGNITION, METACOGNITION AND SOCIAL COGNITION AFTER A FIRST EPISODE PSYCHOSIS. PRELIMINARY RESULTS FROM A 5-YEAR-FOLLOW-UP STUDY

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Background: Cognitive impairment is considered a core feature of psychotic disorders. Deficits in cognition, metacognition and social cognition have been reported to be correlated, and indeed predictors, of functional outcome or level of disability. Psychotic patients tend to present lower IQ and show impairment in specific cognitive domains, and in social cognition, than controls. Several studies have found deficits in facial emotion recognition (FER) and a higher prevalence of the jumping to conclusions (JTC) reasoning and data gathering biases among psychotic patients, even at time of illness onset, compared to controls. However, the trajectory of this impairment remains unclear. Only a few studies have jointly investigated longitudinally the course of neurocognitive and social cognitive deficits, emotional processing, and JTC. Therefore, this study aimed to explore long-term trajectories of IQ, JTC, and FER using 5-year follow up (FU) data.
Methods: 36 patients with First Episode Psychosis (FEP) and 70 controls from the London subsample of the EUGEI study were followed up after 5 years. Sociodemographic, clinical and neuropsychological assessments were performed at baseline and 5-year-follow-up. Current IQ was measured using WAIS III short form, JTC bias through the 60:40 beads task, and FER using Degraded Facial Affect Recognition (DFAR) task. In STATA 15, repeated measures ANOVA was used to analyse changes between baseline and follow up scores.
Results: Mean IQ scores for patients were 88.4 (20) at baseline and 92.6 (SD 17.9) at FU. For controls, IQ scores were 104.5 (SD 18.4) at baseline and 108.9 (SD 19.5) at FU. For patients, mean number of beads was 3.9 (SD 4) at baseline and 3.2 (SD 3.4) at FU, while controls decided after 6.3 (SD 4.6) beads on average at baseline and 6.5 (SD 3.2) at FU. For patients, mean DFAR scores were overall [baseline: 72.5 (SD 16); FU: 72.4 (SD 18.1)], neutral [baseline: 79 (SD 19.1); FU: 76.5 (SD 24.3)], happy [baseline: 86.9 (SD 16.9); FU: 88.4 (SD 18.9)], fearful [baseline: 51.3 (25.6); FU: 54.2 (SD 20.9)], angry [baseline: 72.8 (24.3); FU: 70.4 (26.9)]. For controls, mean DFAR scores were overall [baseline: 76.3 (SD 8.6); FU: 75.4 (SD 8.7)], neutral [baseline: 82.2 (SD 12.8); FU: 84.9 (SD 13.1)], happy [baseline: 93 (SD 7.9); FU: 90.7 (SD 8.5)], fearful [baseline: 60.5 (18.1); FU: 58.1 (SD 20.3)], angry [baseline: 69.5 (19.5); FU: 58.1 (20.3)]. Repeated-measures ANOVA showed that patients scored significantly lower than controls on: IQ [$F(1,103) = 22.6$, $p < 0.001$], beads task [$F(1,104) = 12.5$, $p = 0.0006$], DFAR overall [$F(1,101) = 6.94$, $p = 0.0096$], DFAR neutral [$F(1,101) = 10.36$, $p = 0.0017$], DFAR happy [$F(1,101) = 7.88$, $p = 0.0059$] and DFAR fearful [$F(1,101) = 5.45$, $p = 0.0213$]. There was a significant effect of time for IQ scores [$F(1,103) = 19.4$, $p > 0.001$], but no time*group interaction. There was no significant main effect of time or time*group interaction for beads task and all DFAR scores.
Discussion: In line with previous literature, lower IQ was found in the patients group, both at baseline and 5-year-follow-up. Likewise, jumping to conclusion bias and facial emotion recognition impairments were prominent in patients compared to controls. Preliminary Results: pointed out small yet significant improvement in current IQ for both groups. Nonetheless, JTC bias and deficits in recognising emotional facial expressions were found to be steady along the course of the illness. Further research is warranted to examine the association between those impairments and functional outcome.

T53. NEUROPHYSIOLOGICAL AND BEHAVIORAL EFFECTS OF THE STIMULATION OF NICOTINIC RECEPTORS AND NON-INVASIVE BRAIN STIMULATION IN PATIENTS WITH SCHIZOPHRENIA: STUDY DESIGN AND METHODOLOGY OF A RANDOMIZED CONTROLLED TRIAL

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Background: Tobacco dependence is the most common substance use disorder in schizophrenia patients. Research suggests that prevalence rates for patients with schizophrenia are 40 to 80 percent. It is believed that these patients smoke to improve cognitive deficits. This assumption is supported by several neurophysiological and behavioral studies. The aim of the current study is to assess the physiological fundamentals and the behavioral effects of smoking in patients with schizophrenia.
Methods: The present randomized double-blind and controlled study is ongoing and focusses on enhancing cognitive functioning in schizophrenia patients. Nicotinic receptors of participating patients are stimulated by the substance varenicline. The resulting changes are assessed by non-invasive brain stimulation (NIBS) and cognitive performance tests. Additionally, anodal transcranial direct current stimulation (a-tDCS) is applied for inducing plasticity to examine the interaction between tobacco consumption and brain stimulation. The treatment consists of twice daily 1 mg of varenicline (or placebo) and 20-minute a-tDCS (or sham tDCS) over a period of five days. Sixty patients with schizophrenia will be recruited for this pilot study.
Results: This is a double-blind study. Therefore no results can be shown so far. To this date 18 patients have been recruited (female = 6). There haven't been major side effects and patients are tolerating the interventions well.
Discussion: During the conference we will present the concept and design of the combined "varenicline x tDCS" trial for the treatment of cognitive deficits in schizophrenia.

T54. EFFECTS OF GAMMA TRANSCRANIAL ALTERNATING CURRENT STIMULATION TO THE LEFT DORSOLATERAL PREFRONTAL CORTEX ON WORKING MEMORY IN SCHIZOPHRENIA PATIENTS

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