

## EPV1317

## The effect of intranasal oxytocin application and mindfulness-based group therapy for patients with schizophrenia spectrum disorders – A study protocol

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**Introduction:** Research indicates improvements in negative symptoms and empathy for schizophrenia spectrum disorders (SSD) after mindfulness-based interventions (MBI). Current treatment approaches for SSD remain limited regarding their effectiveness on negative symptoms and sociocognitive deficits. After oxytocin (OXT) administration, especially in a positive social context, an increase in empathy could be shown. The effect of mindfulness in combination with OXT has not yet been examined.

**Objectives:** This study investigates the additional effect of OXT administration combined with MBI on empathy and negative symptoms in patients with SSD.

**Methods:** An experimental, randomised, triple-blinded, placebo-controlled study is proposed. Based on power calculations, 140 participants with SSD will be recruited at Charité – Universitätsmedizin Berlin. A dose of intranasal oxytocin with 24 I.U. or placebo will be administered 45 minutes before each session. Following each administration, a total of four MBI interventions will take place for two weeks. Empathy as primary outcome will be measured using validated psychometric questionnaires. Outcomes, including negative symptoms and OXT plasma levels, will be measured at baseline and post-intervention. A 2x2 mixed-model ANCOVA design with time as within- and group as between-subject factor will be calculated to assess empathy and negative symptom changes.

**Results:** The study hypothesises that applying intranasal oxytocin in combination with MBI will increase empathy and reduce negative symptoms in patients with SSD.

**Conclusions:** Findings could provide insight into enhancing therapies like MBI by utilising OXT as a possible supplementary treatment option. Findings could therefore pave the way for a personalised psychiatric medicine treatment for individuals with SSD.

**Disclosure:** No significant relationships.

**Keywords:** Mindfulness; schizophrénia; Oxytocin; negative symptoms

## EPV1316

## Differences in physical activity in subjects with psychosis versus a control group

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**Introduction:** Psychiatric illnesses are related with a reduced life expectancy and an increase of mortality rates (around 60%) mainly associated with cardiovascular diseases [1]. The high prevalence of obesity, metabolic syndrome, diabetes mellitus and tobacco use among these patients undoubtedly predispose to the impairment in physical health and mortality increase. Regular physical activity in the general population is associated with a decrease in cardiovascular risk but little is known about its influence in some chronic and severe mental disorders like schizophrenia [2].

**Objectives:** To quantify the physical activity performed by a sample of subjects with psychosis, both males and female, compared to a control group.

**Methods:** A sample composed of 141 patients with schizophrenia was compared to 103 healthy subjects as a control group. The International Physical Activity Questionnaire - Short Form (IPAQ) scale was applied to all participants. The time (minutes) of physical activity performed in a week (METs) was collected by each participant [3].

**Results:** The differences in the total physical activity METs for the patients with schizophrenia were highly significant ( $p = 0.001$ ), showing a lower degree of physical activity compared to the control group. A higher and significant percentage of sedentary lifestyle among the psychiatric group (64.5%), compared to 35.5% in the control group was found.

**Conclusions:** The group of patients with Schizophrenia showed a significant higher sedentary lifestyle including less physical activity. This finding could be highly related with a higher risk of cardiovascular disease and deterioration of the physical health.

**Disclosure:** No significant relationships.

**Keywords:** schizophrénia; Physical exercise; Psychosis; physical health

## EPV1317

## Language and turn-taking in schizophrenia spectrum disorders

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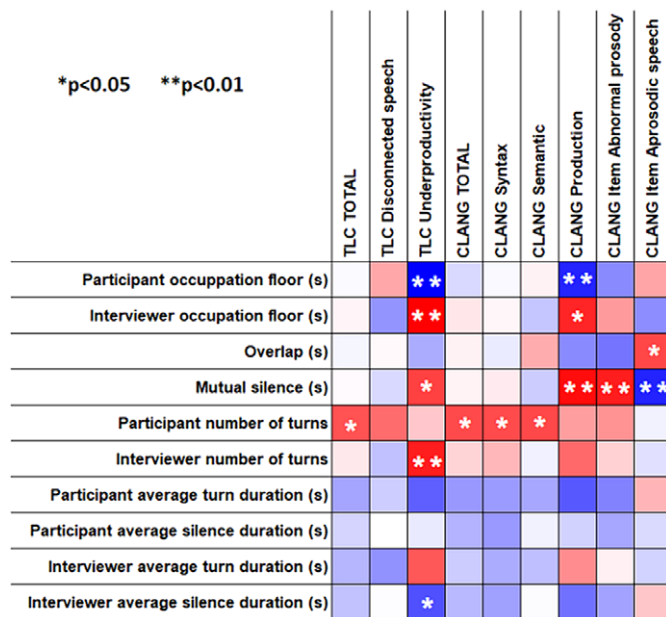
**Introduction:** Language and conversation are deeply interrelated: language is acquired, structured, practiced in social interactions and linguistic resources (specifically syntactic, prosodic and pragmatic

aspects) contribute to finely tuning turn-taking. Nevertheless, most studies focused on verbal aspects of speech in schizophrenia, with scant attention to their relation to conversation, where language is experienced at most.

**Objectives:** The present study was aimed at investigating a possible association between language impairment and conversational characteristics in a sample of clinically stable patients diagnosed with schizophrenia (N = 35, ages 18-65).

**Methods:** A spontaneous speech sample was recorded. For the assessment of language skills, the Scale for the Assessment of Thought, Language and Communication (TLC) and the Clinical Language Disorder Rating Scale (CLANG) were used, while conversational variables were extracted with an innovative method of semi-automatic analysis. The possible associations were investigated through the Pearson Correlation.

**Results:** Figure 1 represents graphically the correlational matrix between conversational variables and linguistic scale scores. In the heatmap, blue means negative and red positive correlations, the stronger the colour, the larger the correlation magnitude. Moreover, the significant associations are indicated with stars.



**Conclusions:** The results suggest that in schizophrenia spectrum disorders the disturbances of language, at a syntactic, prosodic and pragmatic level, have significant impact on communicative interaction.

Thus, conversation analysis might be a promising method to quantify objectively communicative impairment with the benefit of representing an ecological assessment, examining the performance of patients in the real situation of language use, which is social interaction.

**Disclosure:** No significant relationships.

**Keywords:** schizophrenia; language; Conversation; turn-taking

EPV1318

A Link Between Gut Microbiota and Schizophrenia

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**Introduction:** Microorganisms distributed in our tissues and fluids make up the human microbiota. During our lifetime, gastrointestinal microbiota acts as an important modulator of brain development and, in turn, adult behavior and health. Immune response may be triggered by gut microbiota, releasing mediators that penetrate the blood-brain barrier (BBB).

**Objectives:** Understanding if gut microbiota can influence schizophrenia pathogenesis. Clarifying how gut microbiota can influence schizophrenia treatment, and vice-versa.

**Methods:** PubMed database search, with “gut microbiota and schizophrenia” keyword expression. Eight articles published in the last ten years were selected among the most recent best match results. Reference lists of articles were reviewed to identify additional articles.

**Results:** There could be an association between the development of gut microbiota starting during pregnancy and schizophrenia pathogenesis, through an immune-mediated process. Schwarz *et al.* (2018) investigated the differences in faecal microbiota between individuals with first-episode psychosis and controls. They found psychotic patients to have an increased amount of Lactobacillus bacteria. Yuan *et al.* (2018) studied microbiota changes in patients with schizophrenia, before and after treatment. Individuals diagnosed with schizophrenia had less faecal Bifidobacterium, Escherichia coli and Lactobacillus. After treatment with risperidone, there was a significant increase in the amount of fecal Bifidobacterium and E. Coli.

**Conclusions:** Microorganisms living inside our gastrointestinal tract are vital for proper central nervous system (CNS) development. Patients with schizophrenia have anomalies in the composition of the microbiota. It remains unclear if microbiota changes after treatment further influence the course of the disease.

**Disclosure:** No significant relationships.

**Keywords:** Gut microbiota; schizophrenia; Pathogenesis

EPV1319

Vigo Insight Monitoring Scale in Schizophrenia (VIMS): validation in a sample of patients with schizophrenia

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**Introduction:** Lack of awareness of the disease is one of the most frequent symptoms (<80%) of schizophrenia, and it is accepted to have different aspects: cognitive, related to compliance, specific symptoms, and temporary. The detection of those dimensions of insight affected, allows to select and prioritize the objectives and therapeutic strategies to improve it.