

**Conclusions:** Psychosis and depression exhibit distinct multi-level signatures evident in early disease stages. Enhanced insight into these signatures could help delineate individual trajectories and potentially new mechanisms for pharmacological treatment.

**Disclosure of Interest:** None Declared

O0013

### Elevated herpesvirus antibody levels linked to schizophrenia and bipolar disorder

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**Introduction:** Previous research has implicated herpes simplex virus 1 (HSV1) and cytomegalovirus (CMV) in severe mental illness (SMI) with conflicting results. Both pathogens have high universal seroprevalence, are neurotropic and after the primary infection typically establish a persistent latent infection with periodic reactivations. Increased immunoglobulin G (IgG) concentrations are considered to be attributable to an increased infection severity with more frequent reactivations or host immune system alterations.

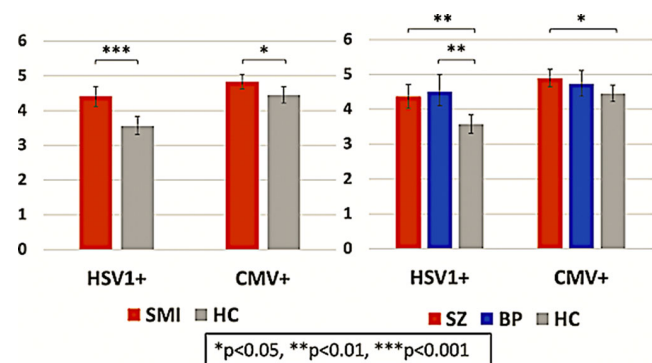
**Objectives:** We assessed the HSV1 and CMV IgG concentrations in previously infected (seropositive) patients with SMI and healthy controls (HC). We hypothesized that seropositive patients would show higher IgG concentrations than seropositive HC.

**Methods:** We included 765 patients, 515 with schizophrenia (SZ) and 250 with bipolar disorder (BP), and 541 HC. HSV1 and CMV IgG seropositivity and concentrations were measured with immunoassays. 355 patients, mean age 33 years, 45% females, and 238 HC, mean age 35 years, 44% females, were HSV1 seropositive (HSV1+) while 447 patients, mean age 33 years, 50% females, and 296 HC, mean age 34 years, 47% females, were CMV seropositive (CMV+). In our main analysis among seropositive participants, we investigated the main effect of patient/control status on HSV1 and CMV IgG concentrations.

**Results:** There were no significant differences in CMV or HSV1 seropositivity frequencies between patients with SZ, patients with BP and HC. Among seropositive participants, patients had higher HSV1 ( $p<0.001$ ) and CMV ( $p=0.018$ ) IgG concentrations than HC; stratifying by diagnosis, both patients with SZ ( $p=0.001$ ) and patients with BP ( $p=0.001$ ) had higher HSV1 IgG concentrations than HC, while patients with SZ, but not BP, had higher CMV ( $p=0.045$ ) IgG concentrations than HC (Image). For HSV1, higher IgG concentrations were associated with higher general ( $p=0.017$ ),

negative ( $p=0.041$ ) and positive ( $p=0.028$ ) psychotic symptom scores.

**Image:**



**Conclusions:** Seropositive patients with SMI showed higher HSV1 and CMV IgG concentrations than seropositive HC suggesting that patients suffer a more severe infection or exhibit an altered immune response when contracting the pathogens. For HSV1, higher IgG concentrations were linked to more psychotic symptoms.

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O0014

### Significant beneficial effects of 12-weeks add-on yoga therapy on antipsychotic-stabilized schizophrenia patients through epigenetic modulation: novel findings from a randomized controlled study

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**Introduction:** Complementary and alternative therapy, especially yoga, is emerging as an important treatment modality for various complex disorders. Yoga therapy has reportedly been demonstrated to exhibit clinical benefits in schizophrenia. However, the modulatory effects of yoga therapy on the pathobiological pathways of schizophrenia are inadequately explored. Immune dysregulation is a widely recognized etiopathological construct of schizophrenia. It is not precisely known whether yoga therapy can modulate the expression of immune molecules by regulating gene expression and epigenetic processes in schizophrenia.

**Objectives:** To understand the impact of 12-weeks add-on yoga therapy on the immune-inflammatory pathway in schizophrenia

by examining plasma levels and gene expression levels of cytokines and complement proteins as well as by profiling promoter DNA methylation pattern of genes coding for cytokines and complement proteins.

**Methods:** Fifty-seven schizophrenia patients fulfilling DSM-V criteria were recruited into the study and randomized into Yoga therapy (n=28) and waitlist control (n=29) groups. Plasma levels of IL-1 $\beta$ , IL-6, IL-10, IL-17, C1q, C2, C3, C4, C5, C5a, Factor B and Factor H by Multiplex Suspension Assay, quantification of gene expression of *Il1b*, *Il6*, *Il10*, *Il17*, *C3*, *C4* and *C5* genes by quantitative PCR and promoter DNA methylation of *Il1b*, *Il6*, *Il10*, *Il17*, *C3*, *C4* and *C5* genes by pyrosequencing were carried out in all the study participants.

**Results:** Plasma levels of IL-1 $\beta$  (Z score= 2.42, p=0.02) dropped significantly and C2 (Z score= 2.24, p=0.03) levels increased after 12-weeks of yoga therapy. The expression of *Il1b* (Z score=2.45, p=0.01) and *Il6* (Z score=2.07, p=0.04) genes were significantly downregulated, while the levels of *C4* (Z score=2.23, p=0.03) gene was upregulated in schizophrenia patients of yoga therapy group. Two CpG sites in the promoter region of *Il1b* (all p $\leq$ 0.05) and *Il6* (all p $\leq$ 0.05) genes and three CpG sites in the promoter region of *C4* (all p $\leq$ 0.05) gene were hypermethylated, while two CpG sites in the gene body of *Il6* (all p $\leq$ 0.05) gene and two CpG sites in the promoter region of *Il10* (all p $\leq$ 0.05) gene were hypomethylated after 12-weeks of yoga therapy in schizophrenia patients.

**Conclusions:** Our findings provide important insights into the mode of action of yoga therapy in schizophrenia. This study for the first time reports the epigenetic effects of yoga therapy on immune-inflammatory pathway in schizophrenia.

**Disclosure of Interest:** None Declared

## Psychopathology

### O0015

#### Mental health competencies are stronger determinants of well-being than mental disorder symptoms even in psychiatric samples

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**Introduction:** Exploring the positive psychological and behavioural dimensions of people living with mental disorders can establish a firm ground in a therapeutic alliance for setting up positive life goals.

**Objectives:** The present study aimed to explore whether the strength of the mental health capacities and the severity of mental disorder symptoms and the interaction of the two differ in the strength of their associations with several dimensions of well-being on Hungarian adult psychiatric and non-clinical community samples.

**Methods:** The psychiatric sample (129 patients (44 male, 85 female)) was collected in four Hungarian healthcare facilities using a cross-sectional design. The non-clinical community sample (253 adults (43 male, 210 female)) was collected online using a cross-sectional design. All the respondents completed the Mental Health Test, six well-being and mental health measures, and the Symptom Checklist-90-Revised.

**Results:** Including both the mental health competencies and mental disorder symptoms variables in one regression model in both samples can predict patients' well-being even more accurately. Mental health competencies related positively; mental disorder symptoms connected negatively to subjective well-being. In all models and both samples, mental health competencies were found to be a stronger determinant of well-being than the mental disorder symptoms. The interaction of mental health functioning and mental disorders is no more predictive of well-being in either psychiatric or non-clinical samples than when the effects of each are considered separately.

**Conclusions:** The assessment of mental health competencies has an important predictive value for well-being in the presence of psychopathological symptoms and/or mental disorders.

**Disclosure of Interest:** None Declared

## Psychopharmacology and Pharmacoeconomics

### O0016

#### Use of Intranasal Oxytocin to Treat Adult Autism Spectrum Disorder: A Randomized Double Blind Controlled Trial

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**Introduction:** Autism Spectrum Disorder (ASD) is characterized by impairments in social interaction and restricted interests. It has been reported that oxytocin may improve processing of social cues and emotions in adults with ASD.

**Objectives:** The aim of this study was to evaluate the therapeutic effects and safety of intranasal oxytocin in this population.