

However, for schizophrenia spectrum disorders (SSD), only a few trials have been conducted, mostly in outpatient settings.

**Objectives:** This study aimed to investigate feasibility, acceptability, and preliminary effectiveness of a four-week mindfulness-based group therapy (MBGT) for in-patients with SSD.

**Methods:** A pre-registered randomized controlled trial (RCT) was conducted at the in-patient ward for SSD. All measures were employed at baseline, post-intervention (4-weeks), and follow-up (12-weeks). The primary outcome was 'mindfulness'. Secondary outcomes were rater-blinded positive- and negative symptoms, depression, social functioning, as well as self-rated mindfulness, depression, anxiety, psychological flexibility, quality of life, and medication regime.

**Results:** N=40 participants were randomized into either four-week treatment-as-usual (TAU; n=19) or MBGT+TAU (n = 21). Protocol adherence was 95.2%, and the retention rate to treatments was 95%. ANCOVA analysis revealed significant improvements in the MBGT+TAU compared to TAU for the primary outcome and negative symptoms. Exploratory analyses showed medium-to-large intervention effects on secondary outcomes mindfulness, positive, negative, and depressive symptoms, psychological flexibility, quality of life, and social functioning for MBGT+TAU and small-to-moderate changes on positive symptoms and social functioning for TAU. No serious adverse effects were reported.

**Conclusions:** This study supports the feasibility and acceptability of MBGT for in-patients with SSD, including high protocol adherence and retention rates. A proof of concept of the MBIs and corresponding improvements on various clinical and process parameters warrant a fully powered RCT to determine effectiveness, cost-efficiency, and longitudinal outcomes of MBGT for SSD.

**Disclosure:** No significant relationships.

**Keywords:** randomized controlled trial; Schizophrenia spectrum disorders; mindfulness; psychotherapy

## EPV0626

### Insomnia associated with neutrophil/lymphocyte ratio in female patients with schizophrenia

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**Introduction:** Worse sleep quality and increased inflammatory markers in women with schizophrenia (Sch) have been reported (Lee et al. 2019). However, the physiological mechanisms underlying the interplay between sleep and the inflammatory pathways are not yet well understood (Fang et al. 2016).

**Objectives:** Analyze the relationship between Neutrophil/Lymphocyte (NLR), Monocyte/Lymphocyte (MLR) and Platelet/Lymphocyte (PLR) ratios, and insomnia in Sch stratified by sex.

**Methods:** Final sample included 176 Sch patients (ICD-10 criteria) [mean age: 38.9±13.39; males: 111(63.1%)]. Assessment: PANSS, Calgary Depression Scale (CDSS), and Oviedo Sleep Questionnaire (OSQ) to identify a comorbid diagnosis of insomnia based on ICD-10. Fasting counting blood cell were performed to calculate ratios. Statistics: U Mann-Whitney, logistic regression.

**Results:** Insomnia as comorbid diagnosis was present in 22 Sch (12.5%) with no differences between sex [14 males (12.6%), 8 females (12.3%)], neither in their age. Female patients with insomnia showed increased NLR [2.44±0.69 vs. 1.88±0.80, U=122.00 (p=0.034)]. However, no differences in PLR and MLR were found, neither in any ratio in males. Regression models using insomnia as dependent variable and covariates (age, PANSS-positive, PANSS-negative, CDSS) were estimated. Females: presence of insomnia was associated with NLR [OR=3.564 (p=0.032)], PANSS-positive [OR=1.263 (p=0.013)] and CDSS [OR=1.198 (p=0.092)]. Males: only PANSS-positive [OR=1.123 (p=0.027)] and CDSS scores [OR=1.220 (p=0.005)] were associated with insomnia.

**Conclusions:** NLR represent an inflammatory marker of insomnia in Sch but only in female patients. Improving sleep quality in these patients could help to decrease their inflammatory response.

**Disclosure:** No significant relationships.

**Keywords:** female; schizophrenia; Insomnia; Inflammation

## EPV0628

### Investigating the influence of thought interference and somatic passivity on outcomes in patients with psychosis

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**Introduction:** Of the many studies describing psychotic symptoms in schizophrenia, few have investigated their direct influence on prognosis.

**Objectives:** We aimed to apply natural language-processing (NLP) algorithms in routine healthcare records to identify reported somatic passivity and thought interference symptoms (thought broadcasting, insertion and withdrawal), and determine associations with prognosis by an analysis of routine outcomes.

**Methods:** Four algorithms were thus developed on de-identified mental healthcare data from a large south London provider and were applied to ascertain recorded symptoms over the three months following first presentation to that service in a cohort of patients with a primary schizophreniform disorder (ICD-10 F20-F29) diagnosis. The primary binary dependent variable for logistic regression analyses was any negative outcome (Mental Health Act section, >2

antipsychotics prescribed, >22 days spent in crisis care) over the subsequent 2 years, adjusted for age, gender, ethnic group, neighbourhood deprivation, diagnostic group, and recorded paranoia, persecutory delusions or auditory hallucinations.

**Results:** In 9,323 patients, final models indicated significant associations of this composite outcome with baseline somatic passivity (prevalence 4.9%; adjusted odds ratio 1.61, 95% CI 1.37-1.88), thought insertion (10.7%; 1.24, 1.15-1.55) and thought withdrawal (4.9%; 1.36, 1.10-1.69), but not independently with thought broadcast (10.3%; 1.05, 0.91-1.22).

**Conclusions:** Symptoms traditionally central to the diagnosis of schizophrenia, but under-represented in current diagnostic frameworks, were thus identified as important predictors of short- to medium-term prognosis.

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**Keywords:** Natural-Language Processing; prognosis; schizophrenia; psychosis

## EPV0630

### CT abnormalities in late-onset schizophrenia and schizoaffective disorder correlate with number of psychotic episodes and cognitive dysfunction

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**Introduction:** Late-onset psychosis is associated with development of dementia. Search for neuroimaging signs in these patients is important.

**Objectives:** This study aimed to assess CT abnormalities and their clinical correlations in late-onset psychosis.

**Methods:** Patients with DSM-V diagnosis of late-onset schizophrenia (LOS, n= 43, age 65.2±9.4, 90% females) and schizoaffective disorder (LOSAP, n=9, age 64.9±5.8, 30% females) underwent CT and cognitive examination before discharge. Atrophy and ventricles enlargement were ranged from 0 (abs.) to 3 (sev.); vascular pathology - from 0 (abs.) to 2 (mult.). Patients were compared with 16 controls (age 58.1±10.8, 50% females). Nonparametric statistic was used.

**Results:** Patients had more severe frontal ( $\chi^2$  19.7, p=0.003), temporal ( $\chi^2$  10.7, p=0.097), parietal ( $\chi^2$  21.7, p=0.001), cerebellar ( $\chi^2$  14.8, p=0.005) atrophy and ventricles enlargement ( $\chi^2$  15.6 p=0.016). 29 % of LOS and 44% of LOSAP patients had leukoaraiosis. All findings correlated with age. In patients ventricular enlargement correlated with number of psychotic episodes (r=0.338, p=0.014), lower MMSE (r=-0.314, p=0.045), immediate (r=-0.508, p=0.002) and delayed (r=-0.404, p=0.016) verbal recall. Temporal atrophy correlated with number of episodes (r=0.439, p=0.001), lower MMSE (r=-0.327, p=0.037) and immediate verbal recall (r=-0.339, p=0.046); cerebellum atrophy - with lower MMSE

(r=-0.338, p=0.036) and FAB (r=-0.407, p=0.01); leukoaraiosis - with number of episodes (r=0.503, p=0.001), prolonged hospital stay (r=0.345, p=0.024); vascular pathology - with number of episodes (r=0.336, p=0.015), lower visual recall (r=-0.399, p=0.019), performance time in TMT-B (r=0.404, p=0.024).

**Conclusions:** Correlations between CT pathology, cognitive dysfunction and number of psychotic episodes may reflect progression of brain pathology due to psychosis.

**Disclosure:** No significant relationships.

**Keyword:** late-onset psychosis schizophrenia neuroimaging

## EPV0631

### Decision making and implicit suicidality in schizophrenia spectrum disorders

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**Introduction:** Research shows that mental illnesses increase suicidal risk. Studies have found that suicidal risk is associated with impaired decision-making.

**Objectives:** To analyze decision making based on emotional learning in implicit suicidality.

**Methods:** 56 male patients with schizophrenia spectrum disorder (F20) and denied presence of suicidal ideation were involved into the study (mean age 23±2.7). Methods: Iowa gambling task (IGT) - integral indicators were used: the prevalence of "good" choices over "bad" ones, total score; and an indicator reflecting the ignorance of consequences of one's choice - the subject remains on a "bad deck" after a loss. The Rorschach test (Rorschach Comprehensive system) was administered: Suicide Constellation «S-CON» and its components were used.

**Results:** According to the analysis, prevalence of "good" choices (IGT) negatively correlates with «S-CON» (Spearman's correlation -0.328\*, hereinafter significance level: ~ - p<0.1; \* - p<0.05). A decrease in the total IGT score is associated with the following cognitive indicators: disregard for social conventions, non-conformism («P») (Spearman's, 0.337\*); a tendency to react defensively to a problem situation, blocking activity in terms of making decisions («R») (0.308\*). Ignoring the consequences of one's choice (IGT) correlates with such emotional factors as emotional incontinence, superficiality of emotions, emotional lability («FC:CF+C») (-.0382\*), ambivalence of emotions («Blcol-shd») (statistical tendency, 0.277~), expressed dissatisfaction with the existing situation, internal tension and dysphoria («S») (0.291~).

**Conclusions:** The relationship of implicit suicidality with decision-making was found to be similar to the relationship of pronounced suicidality with decision-making. Suicidality is associated with impaired ability to make decisions based on emotional learning.

**Disclosure:** No significant relationships.

**Keywords:** Rorschach test; Iowa gambling task; schizophrenia; implicit suicidality