



## Editorial Overview

## Highlights



**Gerritsen et al. (2019)** utilize the experience sampling methodology to assess the temporal dynamics between stress and positive symptoms in patients with psychosis. Their 10-day study, employing time-lagged multilevel modelling, demonstrated that activity-related stress produced increases in anhedonia. These results offer the potential of personalized and targeted interventions in psychosis patients while also offering insights into mechanisms of illness

**Piotrowski et al. (2019)** examine how biological dysregulations, calculated from 15 biomarkers, differs in clinical high risk, first episode, acutely relapsed, and healthy controls. Results that dysregulation, also known as allosteric load, was correlated with higher degrees of psychopathology, worse functioning, and higher levels of cognitive impairment suggest a link between biological process and functional outcomes. These results offer the potential of new biomarkers to assess recovery and one day guide treatment response.

**Ferraro et al. (2019)** explore the timely topic of how cannabis use may impact both onset and cognition among those with psychosis. Their study conducted at two distinct sites in Europe concludes that higher levels of cannabis use may have contributed to onset of psychosis, especially in those with a higher premorbid IQ. Cannabis use may be the triggering factor for psychosis in those with less neurodevelopmental impairment, who may have escaped psychosis, but for the pathogenic effect of cannabis.

**Fritze et al. (2019)** undertake an exploration of how soft neurological signs in patients with psychotic disorders correlate with brainstem volume. The authors report medulla oblongata and pons volumes correlated with soft neurological signs in first episode but not multiple episode patients. Very few studies have implicated brain stem structures in the pathophysiology of psychotic disorders, pointing to the novelty of this study.

**Ahn et al. (2019)** compared white matter characteristics in children at risk for schizophrenia after birth and at one and two years of age with healthy controls. Abnormal white matter integrities in some white matter tracts were seen in children at risk for schizophrenia. Though the results are preliminary, they suggest early white matter development alterations in infants at risk for schizophrenia consistent with the neurodevelopmental model of schizophrenia.

**Reynolds et al. (2019)** examined a large (n=707) set of individuals attending a youth mental health service in Melbourne, Australia between 2011 and 2014. Higher social deprivation neighborhoods had at greater relative risk of disengagement; each increase in decile of deprivation led to a 4.7% increase in disengagement. Clearly service allocation needs to be resourced with the population demographic characteristics in mind.

**Augustin et al. (2019)** examined the effect of smoking and fluvoxamine on clozapine serum concentrations and N-

desmethylclozapine, in a naturalistic setting by examining a therapeutic drug monitoring database. Smoking reduced serum concentrations of both by over a third, while fluvoxamine combined with clozapine led to higher serum drug levels. The opposing effects of cytochrome P450 enzyme induction by smoking and inhibition by fluvoxamine on clozapine serum concentrations are worth keeping in mind in clinical practice.

**Treichler et al. (2019)** asked whether subjective cognitive difficulties improve along with cognitive gains following targeted cognitive training in schizophrenia. Significant improvements were seen in verbal learning and memory compared to treatment as usual but no changes were seen in subjective cognitive difficulties. Lack of subjective improvement may undermine treatment engagement; ongoing feedback on performance by clinicians may help patients better detect improvements, and thereby increase motivation.

**Graber et al. (2019)** investigated electrophysiological biomarkers in children and adolescents (age 13-18) with early onset psychosis and the clinical high risk state. They found diminished P300 response in early course psychosis compared to those at CHR and HC, most evident at right centroparietal and parietal regions. P300 may be a good biomarker for pediatric psychosis patients and may help predict outcome and treatment response.

## References

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John Torous

*Beth, Israel Deaconess Medical Center and Harvard Medical School*

Matcheri S. Keshavan

*Beth, Israel Deaconess Medical Center and Harvard Medical School*