EPP0085

The effects of reading literary fiction on the measurement and development of mentalization skills among schizophrenic patients

J. Fekete[1*], T. Tényi[2], Z. Pótó[3], E. Varga[2] and R. Herold[2]

[1]University of Pécs, Department Of Languages For Biomedical Purposes And Communication, Pécs, Hungary; [2]Medical Faculty, University of Pécs, Hungary, Department Of Psychiatry And Psychotherapy, Pécs, Hungary and [3]University of Pécs, Faculty Of Humanities And Social Sciences, Pécs, Hungary
*Corresponding author.
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Introduction: Following the mentalization of interpersonal relations can be improved through reading for which the influence of literary fiction can also serve as a model. Schizophrenia is characterized by extensive deficits in mentalization, and the amelioration of these impairments is a major focus in psychosocial treatment research. Reading literature can be a potential tool in improving mentalizing skills.
Objectives: We aimed to examine and compare healthy participants with patients living with schizophrenia, focusing on measuring mentalizing skills and the impact of reading literary fiction on their mentalization skills.
Methods: 47 persons with schizophrenia in remission and 48 healthy controls were assessed and compared with Short Story Task (SST) a new measurement of ToM. SST proved to be a sensitive tool, to individual differences. After reading the short story "The End of Something" (Hemingway) a structured interview was done with 14 questions.
Results: We found that patients with schizophrenia performed significantly worse in their ToM scores compared to healthy controls (ANOVA test, p<0,05). Previous reading experiences correlated significantly with mentalizing scores not just in healthy controls (Independent Samples T-test, p<0,05) but also in patients with schizophrenia. ToM scores were twice as high among those who had prior reading experiences in the schizophrenia group ((MS= 3,91, SD=3,166, M=8,08, SD=4,542; p<0,05, t=-3,509).
Conclusions: We found that mentalization skills could be improved by regular reading. Our results could also be influenced by several other factors such as empathy skills, identification with the characters etc. Our results and conclusions are in line with the results of international research on this topic.

Disclosure: No significant relationships.
Keywords: theory of mind; schizophrenia; mentalisation; reading; literary fiction

EPP0084

Exploring the association between brain-derived neurotrophic factor (BDNF) levels and longitudinal psychopathological and cognitive changes in Sardinian psychotic patients

U. Isayeva[1,2*], M. Manchia[1,3], D. Primavera[1,2], L. Deriu[1], E. Caboni[1], N. Iaselli[1], D. Sundas[1], M. Tusconi[1], R. Collu[2], M. Scherma[2], A. Squassina[2], D. Congiu[2], W. Fratta[2,4], P. Fadda[2,4] and B. Carpiniello[1]

[1]University of Cagliari, Section Of Psychiatry, Department Of Medical Sciences And Public Health, Cagliari, Italy; [2]University of Cagliari, Division Of Neuroscience And Clinical Pharmacology, Department Of Biomedical Sciences, Cagliari, Italy; [3]Dalhousie University, Department Of Pharmacology, Halifax, Canada and [4]University of Cagliari, Centre Of Excellence "neurobiology Of Dependence", Cagliari, Italy
*Corresponding author.
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Introduction: Schizophrenia spectrum disorders are among the most debilitating mental disorders and evidence on its pathophysiological underpinnings is scant. The brain-derived neurotrophic factor (BDNF) appears to be involved in the pathophysiology of these complex psychiatric disorders.
Objectives: The present study investigates the longitudinal variation of serum BDNF levels in a 24-month observational cohort study of Sardinian psychotic patients (LABSP). This study assessed the variation in BDNF serum levels and its relationship with psychopathological and cognitive changes. Further, we also examined if genetic variations within the BDNF gene could moderate these relationships.
Methods: Every six months 105 LABSP patients were assessed for their BDNF serum levels, as well as for a series of psychopathological, cognitive, and drug-related measures. Four tag single nucleotide polymorphisms (SNPs) within the BDNF gene were selected and analyzed using Polymerase Chain Reaction (PCR). Longitudinal data were analyzed using mixed-effects linear regression models (MLRM).
Results: Analysis showed significantly lower peripheral BDNF levels in psychotic patients with depressive and negative symptoms. BDNF levels were also decreased in patients scoring lower in cognitive measures such as symbol coding and semantic fluency. In addition, Val66Met polymorphism within the BDNF gene significantly moderated the relationship between the severity of negative symptoms and BDNF levels.
Conclusions: Our findings are consistent with previous literature suggesting that peripheral BDNF levels are associated with some cognitive domains and mood disruption in major psychosis. The results also suggest the lack of association between most BDNF genetic variants, except Val66Met polymorphism, with the severity of negative symptoms.

Disclosure: No significant relationships.
Keywords: schizophrénia; bdnf; biomarker; Psychosis

EPP0085

Resting-state Functional Connectivity within Frontoparietal Network in Schizophrenia Patients and Healthy Individuals with Better and Worse Executive Functions

Y. Panikratova[1], E. Abdullina[1*], D. Tikhonov[2], V. Kaleda[2] and I. Lebedeva[1]

[1]Mental Health Research Center, Laboratory Of Neuroimaging And Multimodal Analysis, Moscow, Russian Federation and [2]Mental Health Research Center, Department Of Youth Psychiatry, Moscow, Russian Federation
*Corresponding author.
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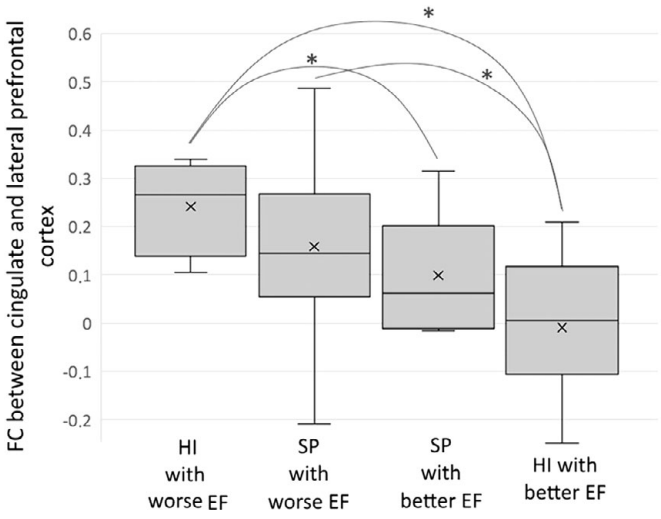
Introduction: Patients with schizophrenia spectrum disorders (SP) demonstrate heterogeneity in executive functions (EF) associated

with the quality of outcome. However, neurobiological mechanisms of this heterogeneity are understudied.
Objectives: We aimed to identify features of resting-state functional connectivity (FC) within the frontoparietal network (FPN) that discriminate between SP and healthy individuals (HI) with better and worse EF.
Methods: Twenty-five SP (mean age 20.8±3.23, illness duration 1.3±2.1 years, all males) and twenty-six HI (mean age 25.17±3.46, all males) underwent EF assessment (4 verbal fluency tests and a modified Stroop task) as well as resting-state fMRI (3T).
Results: We used *k*-means clustering based on EF scores to divide all participants into groups with worse (15 SP, 6 HI) and better EF (10 SP, 20 HI). These groups differed in productivity of all verbal fluency tasks and performance time of the Stroop task. Differences between four subgroups (HI/SP with worse/better EF) were revealed in FC between the cingulate and lateral prefrontal cortex in the left hemisphere (ANCOVA, *p*-uncorrected<.005, *p*[FDR] <.05; Fig. 1). SP and HI within each group demonstrated a similar FC pattern. SP with poorer EF had increased FC, compared to HI with higher EF. HI with poorer EF demonstrated increased FC, compared to HI and SP with better EF.



Conclusions: FC within FPN may be one of the neurophysiological underpinnings of EF heterogeneity in SP as well as in HI. Further machine learning fMRI studies are needed to clarify whether FC within FPN is a prognostic marker in schizophrenia.

Disclosure: The study was supported by RFBR Grant 20-013-00748.
Keywords: resting-state fMRI; schizophrénia; frontoparietal network; Executive functions

Bipolar Disorders 01

EPP0087

Long-term brain changes in bipolar disorder

M. Landén[1]*, B. Liberg[2] and C. Abé[2]

[1]Gothenburg University, Institute Of Neuroscience And Physiology, Gothenburg, Sweden and [2]Karolinska Institutet, Dept Of Clinical Neuroscience, Stockholm, Sweden
*Corresponding author.
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Introduction: The term "neuroprogression" imply that bipolar disorder (BD) progressively worsens for some patients and accompanying neuroanatomical changes. BD has indeed been associated with cortical and subcortical brain abnormalities. But cross-sectional studies cannot determine whether the observed brain alterations reflect static premorbid traits or whether they result from progressive changes during the course of illness.
Objectives: The aims of this series of studies were to determine if progressive brain changes occur in bipolar disorder, and if so, what the drivers of these changes are.
Methods: We addressed these questions in the St. Göran cohort – a longitudinal study where patients and controls undergo structural magnetic resonance imaging (MRI) scans at baseline and after 7 years. We have also conducted a longitudinal multicenter study within the ENIGMA consortium including 307 patients and 925 healthy controls scanned at two time points.
Results: We addressed these questions in the St. Göran cohort – a longitudinal study where patients and controls undergo structural magnetic resonance imaging (MRI) scans at baseline and after 7 years. We have also conducted a longitudinal multicenter study within the ENIGMA consortium including 307 patients and 925 healthy controls scanned at two time points.
Conclusions: BD is associated with some (accelerated ventricular enlargement) but not global progressive brain changes (change in cortical structures do not differ from controls). Occurrence of manic episodes is, however, associated with accelerated cortical thinning over time. These results highlight the importance of preventing the potentially toxic effects of manic episodes and might explain why some patients experience worsening cognitive function.

Disclosure: ML has received lecture honoraria (unrelated to this topic) from Lundbeck pharmaceuticals.
Keywords: neuroprogression; longitudinal; Neuroimaging; bipolar disorder

EPP0089

The potential protein marker of bipolar disorder

A. Seregin[1], E. Dmitrieva[1]*, G. Simutkin[1] and S. Ivanova[2]

[1]Tomsk National Research Medical Center of the Russian Academy of Sciences, Mental Health Research Institute, Tomsk, Russian Federation and [2]Mental Health Research Institute, Tomsk National Research Medical Center of the Russian Academy of Sciences, Laboratory Of Molecular Genetics And Biochemistry, Tomsk, Russian Federation
*Corresponding author.
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Introduction: Difficulties in the diagnosis of bipolar disorder (BD) are associated with a lack of understanding of the mechanisms of its pathogenesis. Identification of proteins involved in the pathogenesis of BD will bring us closer to an understanding of its mechanisms and can help in diagnosis.
Objectives: The search of proteomic biomarkers of bipolar disorder.
Methods: We performed a proteomic analysis of the serum of 16 healthy people and 33 patients with BD. Patients were