

ABSTRACT

The term splitting is defined as a process of formation of mental aggregates linked incompatible experiences producing numerous divisions in mental apparatus. Current findings indicate that psychological splitting in schizophrenia is likely specifically presented on a neural level as disrupted organization in neural communication. This disrupted neural communication likely underlies deficits in mental processing described by various neuroscientific concepts such as theories of disturbed connectivity, corollary discharges and dynamic complexity. In this context, a purpose of the theoretical part of the dissertation is to describe basic neuroscience theories that complementarily reflect interrelated processes between mind and brain underlying disturbances of mental integration that likely present a neural representation of the splitting.

A purpose of the first part of the empirical research was to examine relationships between psychological process of splitting and disturbed cognitive and affective functions in schizophrenia. A sample of patients with borderline personality disorder (BPD) was used as a control group in this study.

Methods: In the clinical study, we have assessed 30 patients with schizophrenia and 35 patients with BPD. The symptoms of splitting were measured using self-reported Splitting Index (SI). As a measure of semantic memory disorganization we have used verbal fluency test. Other psychopathological symptoms were assessed using Health of the Nation Outcome Scale (HoNOS).

Results: Main results show that SI is significantly higher in BPD group than in schizophrenia, and on the other hand, verbal fluency is significantly lower in schizophrenia group. Psychopathological symptoms measured by HoNOS are significantly higher in the BPD group than in schizophrenia. Significant relationship was found between verbal fluency and the SI "factor of others" (Spearman $r = -0.52$, $p, 0.01$) in schizophrenia patients.

Conclusions: Processes of splitting are different in schizophrenia and BPD. In BPD patients splitting results to mental instability, whereas in schizophrenia the mental fragmentation leads to splitting of associations observed as lower scores of verbal fluency, which in principle is in agreement with Bleuler's historical concept of splitting in schizophrenia.

In the second part of the empirical research we have considered that dissociation likely plays a key role in schizophrenia. Simultaneously we have found out that similar role dissociation could play also in borderline personality disorder (BPD), but empirical studies that compare specific manifestations of dissociation in schizophrenia and BPD are rare. In this context, the purpose of the study was to assess the occurrence of dissociative and other psychopathological symptoms in schizophrenia and to compare the presence of these symptoms with BPD. A further aim was to assess the possible influence of antipsychotic medication on the dissociative symptoms.

Methods: We assessed 31 patients with schizophrenia and 36 patients with BPD. Dissociative symptoms were measured by the Dissociative Experiences Scale (DES), symptoms related to stress and traumatic experiences were assessed using the Trauma Symptom Checklist-40 (TSC-40), and other psychopathological symptoms were measured with the Health of the Nation Outcome Scales (HoNOS). We also

assessed actual daily doses of antipsychotic medication in chlorpromazine equivalents in all participants.

Results: The results show that symptoms of traumatic stress measured by the TSC-40 had significantly higher scores in the BPD group. The data also show that dissociative symptoms (DES) were significantly correlated with symptoms of traumatic stress (TSC-40) and with symptoms assessed by the HoNOS. Remarkably significant correlations were found between levels of antipsychotic medication and the DES and between antipsychotic medication and the depersonalization /derealization component of the DES in BPD patients.

Conclusion: The results support an important role of dissociative processes in schizophrenia and BPD and suggest a significant relationship between manifestations of dissociative symptoms in BPD and antipsychotic medication.

In future research might be of interest to assess relationship between the concept of splitting in schizophrenia and deficit synthetic metacognition. The synthetic metacognition as a psychological process is capable to synthesize intentions, thoughts, feelings, and connections between events, and to integrate them into larger complex representations of self and others including also a reflection about that larger representation that involves reflexive functions (thinking about thinking). Synthetic metacognition is measurable by analyzing discourse using standardized procedures.

Key words: splitting, dissociation, metacognition, schizophrenia, borderline personality disorder, antipsychotic medication