

**Discussion:** Patients with a diagnosis of both SCZ and BD-I had higher HCRU and cost than patients with either diagnosis alone. Physicians who recognize these diagnostically challenging patients may be able to effect improved treatment early in the disease process.

**S108. ASSOCIATIONS BETWEEN GLOBAL BRAIN MEASURES AND STATE- AND TRAIT- RELATED SYMPTOM EXPRESSION OF SCHIZOPHRENA**

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**Background:** The course of schizophrenia is characterised by episodes of psychotic symptoms and enduring deficits of negative symptoms, cognition and functioning. We investigated the relationship between global brain measures and trait-related symptoms (endpoint scores), and global brain measures and state-related symptoms (change scores).

**Methods:** We examined global cortical, subcortical and white matter volume, and global cortical thickness in 54 first-episode schizophrenia patients at baseline. We performed clinical, cognitive, and neurological assessments at baseline and twelve month follow-up. We used hierarchical multiple regression to predict baseline brain measures.

**Results:** State-related clinical predictors accounted for 8% of variance in white matter volume, trait-related clinical predictors accounted for 7% of variance in subcortical volume. Trait-related cognitive scores accounted for 15% of variance in subcortical volume and 13% of variance in cortical volume. Baseline subcortical gray matter volume was significantly associated with sensory integration (0.02) and verbal learning (0.04) trait scores, cortical volume with verbal learning (0.04) trait scores, cortical thickness with social and occupational functioning (0.03) trait scores, and white matter volume with motor coordination (0.007) state scores.

**Discussion:** Impaired verbal learning may be the cognitive domain that is particularly trait-related, and possibly closest to the neurodevelopmental deficit underlying schizophrenia. State and trait components of neurological soft signs may be differentially related to brain structure. Mediators of the relationship between trait functional deficits and cortical thickness needs consideration.

**S109. SYMPTOM NETWORK MODELS OF PSYCHOSIS**

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**Background:** Disorders within the psychosis spectrum are highly heterogeneous and multifactorial (Weinberger & Harrison, 2010). However, in spite of decades of research, causes of psychosis are still uncertain (e.g., Tandon et al., 2008). In an attempt to overcome these shortcomings, recent years have seen a rise in the modeling of psychotic disorders as networks of interacting symptoms (Borsboom, 2017). The centerpiece of network modeling lies in the idea that symptoms are active causal agents in producing disorder states, and that the study of their causal interaction is central to progress in understanding and treating mental disorders (Isvoranu et al., submitted). This presentation aims to introduce the network approach to mental disorders in the context of psychotic symptomatology.

**Methods:** The network approach is a novel psychometric framework based on a dynamical systems perspective. In network models, mental disorders such as schizophrenia are no longer conceptualized as common causes of symptoms, but as conditions that arise from the interaction between symptoms. The pattern on interactions can be visualized in a network structure, in which variables (e.g., symptoms, environmental factors, genetic factors) are represented as nodes and the presence of an edge between any two nodes implies the existence of a statistical association, which does not vanish upon controlling for all of the other nodes in the network (Isvoranu et al., 2016). This talk will include two examples of network models. First, using general population data a network model for the relation between three environmental risk factors (cannabis use, developmental trauma, and urban environment), dimensional measures of psychopathology and a composite measure of psychosis is constructed (Isvoranu et al., 2016). Second, using the GROUP dataset (Korver et al., 2012) which includes patients, siblings of patients, parents and controls, a network model is constructed for the relation between a polygenic risk score for psychosis liability and symptoms of psychotic disorders.

**Results:** The results of the first study indicate specific paths between environmental factors and symptoms, most often involving cannabis use (Isvoranu et al., 2016). In addition, the analysis suggests that symptom networks are more strongly connected for people exposed to environmental risk factors, indicating that environmental exposure may lead to less resilient symptom networks. The second study indicates that genetic vulnerability assessed via a polygenic risk score is associated with several individual psychotic symptoms – especially positive psychotic symptoms – suggesting that part of the missing heritability problem may lie in the psychometric conceptualization of psychosis.

**Discussion:** Psychotic disorders feature a multitude of symptoms and problems, which lead to an inherent heterogeneity of psychosis. Current (psychometric) conceptualizations of pathology cannot fully encompass the complexity of these problems – this yields to the need of developing tools that could aid our understanding of psychiatric disorders and could ultimately be implemented in clinical practice. Network modeling may provide such a tool. It is unlikely that there is such a thing as “one-size fits all treatment” for psychosis spectrum disorders, and intervention planning may require personalized network modelling (Isvoranu et al., submitted). In the coming years we are likely to learn the extent to which the network approach could aid research and clinicians.

**S110. THE CLINICAL IMPLICATION OF CLINICIAN-RATED DIMENSIONS OF PSYCHOSIS SYMPTOM SEVERITY (CRDPSS) FOR DIAGNOSIS BY DSM-5**

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**Background:** The most recently published the 5th edition of the DSM proposed a dimensional approach with continuous of schizophrenia and other psychoses. The newly proposed Clinician-Rated Dimensions of Psychosis Symptom Severity (CRDPSS) can usefully be used for the Non- Affective Psychoses (NP) and Affective Psychoses (AP).

**Methods:** Participants in the study were 175 diagnosed with Schizophrenia, or Schizophreniform Disorder, Schizoaffactive Disorder, mood disorder with psychotic symptoms (Major Depressive Disorder, Bipolar Disorder) based on DSM-5 diagnostic criteria and were assigned to either the NP (n = 154) or AP (n = 21) group. CRDPSS was performed jointly by a psychiatrist and a psychiatric resident to assess the severity of the psychotic

Abstracts for the Sixth Biennial SIRS Conference
symptoms of all the participants. And WHO Disability Assessment Schedule 2.0 (WHODAS 2.0) was responded to all participants. Independent T-test was conducted to determine whether there was a difference in CRDPSS profile and WHODAS 2.0 scores between the two groups. In addition, a linear discriminant analysis was performed to determine whether the CRDPSS profile can discriminate between the two groups.

Results: Demographics and WHODAS 2.0 had no statistically significant differences between the two groups. On the other hand, Patients in the NP group had higher Hallucination (p < .05) and Negative symptoms (p < .001), however, lower Mania (p < .001). As a result of constructing a linear discriminant function for NP and AP, the correct classification rate of CRDPSS to discriminate between two groups was 84%.

Discussion: The results of this study are the first to distinct effectively that Non-Affective psychoses and Affective psychoses by CRDPSS profile. There was no difference in the level of functional disability between groups NP and AP, but only CRDPSS profile could discriminate both groups. Hallucinations, Negative symptoms, and Mania were the major contributors to the distinction between the two groups. This is consistent with the previous studies that these are important in distinguishing Schizophrenia and Bipolar Disorder from each other. CRDPSS provides a new perspective that can be viewed from an integrated perspective, the NP and AP. Regarding the result of this study that it is more important to identify the score profile of CRDPSS, because patients exhibit very heterogeneous profile of symptoms.

S111. ARE SCHIZOPHRENIA AND SCHIZO-AFFECTIVE DISORDER SEPARATE?

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Background: Resolving the definition, heterogeneity and validity of schizophrenia-spectrum disorders remains a challenge, including the distinctiveness of schizophrenia and schizoaffective disorder. Here we report clinical, cognitive and structural brain imaging data with special reference to social processing in corresponding patient groups and non-psychiatric control participants. The study question was: to what extent do these data support schizophrenia and schizoaffective disorder as separable biobehavioural syndromes of psychotic illness?

Methods: DSM-V criteria were applied to an outpatient sample, yielding n=44 with schizophrenia and n=29 with schizoaffective disorder. In addition to demographic data, symptom severity was measured in both patient groups with the Positive and Negative Syndrome Scale (PANSS). Overall cognition was measured with the MATRICS Consensus Cognitive Battery (MCCB) composite and social cognition with Theory of Mind, emotion perception and attribution bias tasks. Cortical thickness in regions associated with the social brain network was measured with a 3T General Electric MRI short bore scanner, with parcellations obtained using methods described by Destrieux et al. (2010) in Freesurfer. Non-psychiatric control participants (n=63) were studied with cognitive, social cognitive and MRI measures for comparison.

Results: Study groups did not differ in age, educational achievement, proportion of males or prevalence of English as the preferred language. Patient groups did not differ in symptom severity (PANSS) or anti-psychotic medication (1st versus 2nd generation), but did differ significantly in terms of independent living, with schizoaffective patients significantly more independent than schizophrenia patients. The composite MCCB index and theory of mind task revealed significant differences between controls and patient groups, but no differences between patient groups. Schizophrenia patients differed significantly from both schizoaffective and control participants on the emotion perception task. There were no group differences in attribution bias. Multivariate analysis of variance (MANOVA) revealed that cortical thickness values in the social network were significantly lower in patient groups relative to controls for 14 regions. There were no schizoaffective vs schizoaffective group differences following correction. However, 9 regions were significantly reduced in schizophrenia patients relative to controls and 5 regions in schizoaffective patients relative to controls. Cingulate gyrus and superior temporal sulcus regional differences remained significant following correction.

Discussion: Although schizophrenia and schizoaffective disorder continue to be recognized as distinct syndromes in some diagnostic systems (e.g. DMS V), the validity of the distinction remains in question. Apart from functional independence, which may in part be an artifact of the diagnostic criteria, and aspects of emotion perception, we found no evidence to support longstanding conjectures that these syndromes are distinct, at least not in terms of the clinical, cognitive, social cognitive and social brain network-associated measures used in this study.

S112. RELATION BETWEEN EARLY-ONSET PSYCHOSIS AND FORMAL THOUGHT DISORDER IN SCHIZOPHRENIA

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Background: Formal thought disorder is one of the fundamental features of schizophrenia. Early onset schizophrenia (EOS) is strongly related to poor prognosis and illness outcomes. The aim of this study is to investigate the relation of EOS and formal thought disorder in schizophrenia.

Methods: This research was a retrospective study. Data regarding the patients with schizophrenia were obtained from two separate studies conducted at Dokuz Eylul University. Thought disorder scores were compared between 32 patients with early onset schizophrenia (EOS; age ≤ 18) and 120 patients with adult onset schizophrenia (AOS; age > 18). Also, we looked at the effect of Duration of Untreated Psychosis (DUP). We further categorized these two sets as short DUP (short DUP; ≤ 6 month) and long DUP (long DUP; > 6 month) groups.

Results: Schizophrenia patients with early onset showed significantly higher scores compared to adult onset schizophrenia patients with regards to poverty of speech (U= 1525.50; p = .037) and peculiar sentences (U= 1613.50; p = .043).

Discussion: Early onset schizophrenia patients had significant formal thought disorder abnormalities. Formal thought disorder may have some deterministic characteristics which indicate an important dimension related to prognosis and outcome of schizophrenia. Also, DUP may have potential effect over formal thought disorder.

S113. THE ASSOCIATION BETWEEN SCHIZOTYPAL COMPONENTS AND CONSPIRACIST BELIEFS THROUGH COGNITIVE MEDIATORS

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Background: Belief in conspiracy theories (i.e., a subset of false narratives in which the ultimate cause of an event is believed to be due to a malevolent plot by multiple actors working together) is a widespread and stable aspect of contemporary public opinion. Given such findings, researchers have sought to understand the factors that make someone more or less likely to adopt conspiracist beliefs. More specifically, scholars have focused...