The mediation analysis yielded that depression mediates the relationship between PE and SI (b= .2206, 95% BCa CI [.1783, .2644]). Additionally, network analysis showed the following strength centrality values (SV): depression (mean= 5.92, σ2=1.72; median= 6.08); bizarre experiences (mean= 3.94, σ2=0.35; median= 4.02); perceptual anomalies (mean= 3.75, σ2=2.21; median= 3.75); social anxiety (mean= 3.49, σ2=0.79; median= 3.23); negative symptoms (mean= 3.32, σ2=.23; median= 3.49). SI was strongly connected to pessimism (SV= .69); social anxiety (SV= .41); and self-criticalness/worthlessness (SV= .39). The correlation stability coefficient for the strength was (cor = 0.7) = 0.672, suggesting robustness of the findings.
Discussion: Our findings support prior research showing that DS mediate relationship between PE and SI and adds to this literature by showing which symptoms in particular are important. Some specific depressive symptoms having a central role in this process (pessimism and worthlessness) and also psychotic experiences (social anxiety: being distant to people) and perceptual anomalies (seeing things other cannot) are connected in a meaningful way to suicidal ideation in a community sample of adolescents. These findings should be considered when planning early detection/intervention programs.

O3.4. PSYCHOSIS PHENOTYPES FROM B-SNIP FOR CLINICAL ADVANCES: BIOTYPE CHARACTERISTICS AND TARGETS

Brett Clementz*[1], Rebekah Trotti[1], Godfrey D. Pearlson[2], Matcheri Keshavan[3], Elliot Gershon[4], Sarah Keedy[4], Elena Ivleva[5], Jennifer E. McDowell[1], Carol Tamminga[5]
[1]University of Georgia; [2]Olin Neuropsychiatry Research Center, The Institute of Living at Hartford Hospital, Yale University; [3]Beth Israel Deaconess Med. Ctr. & Harvard Medical School; [4]University of Chicago; [5]UT Southwestern Medical Center

Background: Psychiatry aspires to disease understanding and precision medicine. Biological research supporting such missions in psychosis may be compromised by continued reliance on clinical phenomenology in the search for pathophysiological mechanisms. A transdiagnostic deep phenotyping approach, such as that used by the Bipolar-Schizophrenia Network for Intermediate Phenotypes (B-SNIP), offers a promising strategy for discovery of biological mechanisms underlying psychosis syndromes. The B-SNIP consortium has identified biological subtypes of psychosis, Biotypes, which outperform conventional DSM diagnoses when accounting for variance of multiple external validating measures. While these biological distinctions are scientifically remarkable, their resulting clinical manifestations and potential utility in clinical practice is of paramount importance.
Methods: Approximately 1500 psychosis cases and 450 healthy persons were administered the B-SNIP biomarker battery (including MRI, EEG, ocular motor, and cognition measures). Psychosis cases were also clinically characterized using multiple measures, including MADRS, PANSS, YMRS, and Birchwood. Numerical taxonomy approaches were used for identifying biologically homogenous psychosis subgroups (gap and TWO-STEP cluster identifications, k-means clustering, and canonical discriminant analysis). ANOVA models were used to analyze external validating measures. Multivariate discriminant models were used to identify clinical features differentiating conventional psychosis syndromes and psychosis Biotypes.
Results: There was remarkable similarity between previously published biomarker profiles for DSM psychosis syndromes and a new sample of psychosis cases (average r=.92). Numerical taxonomy on biomarker data recovered three subgroups (replicating previous findings), and the biomarker profiles were highly similar to previous results (average r=.87). Schizoaffective cases were both the most diverse and the most clearly differentiated from schizophrenia and bipolar cases (on conative negative symptoms, depression, and mania) in clinical feature space. The only feature that uniquely distinguished schizophrenia was social-relational negative symptoms. Biotype-1 was characterized by accentuations on clinical features consistent with their biomarker deviations (relational negative symptoms, poor social functioning, and dysfunction of cognition). Alternatively, Biotype-2, also consistent with their biomarker deviations, had clinical features indicating neurophysiological dysregulation (most specifically physiological and behavioral dysregulation). Biotype-3 cases, the most normal across biomarkers, were noticeably absent of Biotype-1 clinical features and had more restricted clinical manifestations than any other Biotype or DSM subgroup. We illustrate three possible Biotype-specific treatment targets.
Discussion: Replication of B-SNIP psychosis Biotypes indicates the possible utility and importance of neurobiological subtyping within psychosis that can yield specific treatment targets. In an analysis of clinical features, B-SNIP found that Biotypes have unique and defining clinical features that are consistent with their neurobiological profiles. Biotypes and DSM psychosis subgroups are neither neurobiologically nor clinically redundant. Specific treatment targets for psychosis Biotypes are not derivable from conventional clinical psychosis diagnoses. B-SNIP outcomes provide a background for future work that could establish psychiatry as a laboratory discipline, at least with regard to care of psychosis patients. This path is hypothetical at the moment but aspirational for the field.

O3.5. EARLY TRAJECTORIES OF POSITIVE SYMPTOMS REMISSION IN FIRST EPISODE-PSYCHOSIS: A 2-YEAR FOLLOW-UP STUDY

Olivier Percie du Sert*[1], Manish Dama[2], Michael Groff[3], Ridha Joober[1], Martin Lepage[1], Ashok Malla[1]
[1]McGill University; [2]University of Toronto; [3]Douglas Mental Health Institute

Background: The Prevention and Early intervention Program for Psychosis (PEPP) provides young people with first episode psychosis (FEP) rapid access to appropriate mental health services designed on the principles of early intervention (EI). We have previously demonstrated high rates of positive symptom (PS) remission. However, the relationship between PS, negative symptoms (NS) and functional outcomes remains unclear. Adherence to medication and early treatment response have been shown to be important independent determinants of the level of, and time to, symptom and functional remission, respectively. While trajectories of symptom severity have been shown to be heterogeneous, no previous study has investigated the prognosis of PS remission among individuals with FEP treated in an EI service. Identification of different trajectories of PS remission is a useful strategy to provide insight into clinically meaningful subgroups of patients while providing valuable information on NS and functioning for improving treatment outcomes.
Methods: The 2-year treatment at PEPP comprises different psychosocial (i.e., cognitive behavioral therapy, group intervention, family intervention, individual placement and support program) and psychopharmacological interventions (i.e., minimum effective dosage of second-generation antipsychotics). Monthly assessments were conducted from baseline to month 24. A total of 387 FEP patients, aged 14–35 years, with DSM IV affective or non-affective psychosis and little or no prior antipsychotic treatment (i.e., < 30 days) were included. PS remission was defined as absence of overt psychotic symptoms (i.e., all global SAPS items ≤ 2). A Latent Class Growth Analysis (LCGA) was used to investigate the distinct trajectories based on cumulative length of PS remission assessed at 3, 6, 9, 12, 15, 18, 21, and 24 months of treatment. Predictors of trajectories were investigated among sociodemographic, pre-treatment, as well as baseline and course clinical characteristics. Chi-square tests, one-way and mixed ANOVAs identified which baseline and longitudinal variables differed between and within trajectories. Candidate predictors that were statistically significant were then entered into a multinomial regression model to determine which factors independently predict trajectory membership.