M118. FACTOR STRUCTURE OF THE CLINICIAN-RATED DIMENSION OF PSYCHOsis SYMPTOM SEVERITY IN PATIENTS WITH EARLY PSYCHOSIS

Kyuyoung Lee1, Yong Sik Kim1
1Eulji University Eulji Hospital

Background: The early psychosis is classically viewed as a critical period. Schizophrenia subtypes which had been used to describe heterogeneity of the disease were discarded with the release of DSM-5 because of the lack of their clinical significance. DSM-5 has proposed the use of the Clinician-Rated Dimension of Psychosis Symptom Severity (CRDPSS) for evaluating the various symptoms of schizophrenia. The 8-domain CRDPSS was developed from the perspective of deconstructing the psychopathology of schizophrenia and would be expected to provide baseline data for further advances in psychiatric nosology. To our knowledge, despite these discussions, the dimensional structure of the CRDPSS has hardly been studied in the patients with early psychosis. The purpose of this study is to investigate the structure categorizing the items of dimensional assessment through factor analysis in patients with early psychosis.

Methods: The subjects were 497 patients with early psychosis who were enrolled in the Korean Early Psychosis Cohort Study. They were between ≥18 years and ≤45 years of age who fulfill the criteria of DSM-5 for schizophrenia spectrum and other psychotic disorders. In KEPS, early psychosis was defined the patients whose duration of treatment were within 2 years. The proportion of males was 41.9% and their mean age and age at onset were 28.7(SD=8.9) and 26.8(SD=9.1) years, respectively. An exploratory factor analysis (EFA) was conducted on the 8 items of dimensional assessment of psychosis in DSM-5 with principle components extracted by the varimax method.

Results: An exploratory factor analysis (EFA) was conducted on the items of dimensional assessment of psychosis in DSM-5 with principle components extracted by the varimax method. Two factors were identified which were labeled as ‘psychotic’ and ‘deficit’ domain. The first factor included delusions (loading=0.834, communality=0.697), hallucinations (loading=0.800, communality=0.640), disorganization (loading=0.654, communality=0.642), and abnormal psychomotor behavior (loading=0.677, communality=0.549). The second factor included negative symptoms (loading=0.833, communality=0.703) and impaired cognition (loading=0.827, communality=0.697). Depression and mania were excluded in factor analysis due to statistical incompatibility such as lack of communality less than 0.4. Bartlett’s test for sphericity was significant (χ² = 817.996, p<0.001), and the total variance of the factor solution was 65.452%.

Discussion: Two factors were identified which were labeled as ‘psychotic’ and ‘deficit’ domain. The first factor included delusions, hallucinations, disorganization and abnormal psychomotor behavior. The second factor included negative symptoms and impaired cognition. To our knowledge, this study is the first attempt to analyze the early psychosis patients using the dimensional assessment of psychosis in DSM-5, and it would be meaningful to follow up the course with the cohort.

M119. DECONSTRUCTING PSYCHOSIS AND CROSS-VALIDATING THE R-PAS VARIABLES TARGETING ITS CONSTRUCTS

Kirsten Buckingham1, Gregory J. Meyer1, Emily T. O’Gorman1, Joni L. Mihura1
1University of Toledo

Background: Consistent with the contemporary literature that psychosis constructs are best represented as continuous syndromes, this study aims to determine if dimensional psychosis measures outperform traditional categorical measures, thereby improving detection of symptom severity. The Rorschach Performance Assessment System (R-PAS) contains meta-analytically supported internationally normed scales for assessing disordered thinking and reality testing that have been replicated in many countries. Given the literature trend of utilizing a dimensional approach when assessing psychosis, a dimensional R-PAS scale for assessing disordered thinking was recently developed. Therefore, it is important to determine if this new measure outperforms the traditional measure. We also attempt to replicate recent research by deconstructing the key components of psychosis (e.g., disorganized thinking, hallucinations, and negative symptoms) and evaluating the validity of the R-PAS measures designed to assess these constructs.

Methods: Our study uses an archival clinical sample of 70 male inpatients with schizophrenia, schizoaffective, and major depressive disorder (Mean age = 41.9, Range 20 to 63) that were collected as part of an IRB-approved research project. Two trained diagnosticians independently interviewed the patients using the Structured Clinical Interview for DSM (SCID) and blindly assigned diagnoses as well as Brief Psychiatric Rating Scale (BPRS) ratings. Interrater reliability of their ratings using ICCs will be computed. The Rorschach was administered and relevant R-PAS variables were scored by trained research assistants. The new R-PAS dimensional measure of disorganized thinking (SPCT) will be coded by the first author, and a subset of protocols will be blindly coded by the third author. Interrater reliability will be computed for all variables.

Results: First, we will conduct correlational analyses to test the relationship between clinician ratings of disorganized thinking (on the BPRS Conceptual Disorganization and relevant SCID criteria) and the traditional measure of disorganized thinking on R-PAS (WSumCog). We will then use hierarchical regression analyses to determine whether the new dimensionalized measure of disorganized thinking (SPCT) provides incremental prediction of the clinician ratings of disorganized thinking on the BPRS and SCID-P over the traditional R-PAS measure (WSumCog). To replicate previous research, we will test the relationship between negative symptom ratings (on the BPRS and SCID) and R-PAS measures of behavioral, perceptual, and emotional task engagement (Complexity & FQ-%). Further, we anticipate that clinician ratings of delusions (on the BPRS and the SCID) will correlate with R-PAS measures of inaccurate understanding of human intention and action (M-) and illogical thinking (SPCT Illogical Thinking subscale). Lastly, we use correlational analyses to test the relationship between clinician ratings of hallucinations (on the BPRS and SCID) and an R-PAS measure of visual misperceptions (FQ-%).

Discussion: Implications of this research provide additional validation for assessing key components of psychosis with a standardized internationally normed measure. Psychosis components (e.g., poor reality testing) limit the accuracy of patients’ self-reported symptoms and inflate rates of misdiagnosis; these R-PAS measures provide a framework for clinicians to behaviorally assess symptoms on a continuum ranging from nonclinical to severe psychosis-level disturbance. This research will aid in more accurate symptom assessment, thereby improving prognosis and treatment planning.

M120. IMPAIRED CLINICAL INSIGHT AS A PREDICTOR OF RELAPSE IN SCHIZOPHRENIA

Jean-Pierre Lindenmayer1, Anazalee Khan2, Philip Harvey3, Richard Klee4, Lora Liharska4, Christian Yavorsky5, Mary Seddo6
1New York University; 2Nathan Kline Institute; 3Leonard M. Miller School of Medicine, University of Miami; 4Duke University Medical Center; 5Mt. Sinai School of Medicine; 6Cronos CCS; 7Manhattan Psychiatric Center

Background: Many individuals with chronic or treatment resistant schizophrenia experience multiple relapses or treatment failures during the course of the illness. Some of these relapses are due to poor treatment compliance that is inherent to schizophrenia. Poor insight may be a...
leading cause for partial- or non-adherence to treatment as a high proportion of individuals with schizophrenia are partially or completely unaware of their mental disorder. The first two years after stabilization are thought to be key for long-term functional and clinical prognosis. In the present study, we first estimated the rate of treatment failure or relapse following clinical stability at one and two years, investigate the time to occurrence of relapse among individuals with chronic schizophrenia and the association between baseline clinical features recorded during the in-patient hospitalization and relapse at one- and two-year time points. We hypothesized that lack of insight, as measured by the PANSS item G12, would be a greater predictor of relapse than other characteristics previously suggested as possible predictors, including other symptoms from the PANSS, age, duration of illness, age at onset of illness, substance use, number of prior hospitalizations, and length of stay of the pre-discharge hospitalization.

Methods: A total of 138 participants diagnosed with schizophrenia or schizo-affective disorder were assessed with a comprehensive assessment at one year and two-year following discharge from a long-term psychiatric facility. Regression models were used to determine factors predicting time to relapse and other elements of functioning. Baseline factors examined included PANSS, MCCB, PSP, demographics and treatment variables.

Results: Relapse rates were 56.52% (n=78 of 138) by Year 1, and 69.56% (n=96 of 138) by end of Year 2. The estimated relapse-free period for all individuals at the end of the study was 8.78 months. The backward elimination (~2 log likelihood=189.59, χ²=9.01, df=2, p=0.021) showed that the best predictive variables for relapse were lack of insight/judgment as assessed by PANSS item G12 at baseline (B=-2.0, SE=.9, df=1, p=.011, Exp[B]=1.36), lifetime years of substance use (B=-1.6, SE=1.1, df=1, p=.029, Exp[B]=1.33), PANSS Factor baseline score on Disorganization (B=-1.5, SE=1.2, df=1, p=.031, Exp[B]=1.56), and number of previous hospitalizations (B=-1.3, SE=.11, df=1, p=.048, Exp[B]=1.23). No other baseline variables were found to be significant.

Discussion: Poor insight is a fundamental symptom of schizophrenia that, while not entirely and uniformly expressed in all individuals, is among the most common symptoms across subjects. Our study shows that the numerous negative consequences of lack of insight should lead clinicians and researchers to make insight a high priority for allocation of clinical resources. Effective approaches to managing these predictive characteristics will allow affected individuals and their families and care providers to take part in collaborative treatment and relapse risk-management paradigms.

M121. CLINICAL PREDICTION MODELS FOR TRANSITION TO PSYCHOSIS: AN EXTERNAL VALIDATION STUDY IN THE PRONIA SAMPLE

Marlene Rosen1, Linda Betz2, Alessandro Bertolino3, Stefan Borgwardt4, Paolo Brambilla4, Katrin Schischohl1, Anna Kambeitz-Ilankovic1, Theresa Haidl1, Rebekka Lenceres1, Eva Meisenzaeh1, Stephane Ruhmann1, Raimo K.Salokangas1, Frauke Schultze-Lutter1, Rachel Upthegrove4, Stephen J. Wood5, Nikolaos Koutsouleris5, Joseph Kambeitz1, PRONIA consortium

1University of Cologne; 2University of Birmingham; 3University of Milan; 4University of Basel; 5Heinrich-Heine University Düsseldorf; 6Orygen, the National Centre for Excellence for Youth Mental Health

Background: A multitude of clinical models to predict transition to psychosis in individuals at clinical high risk (CHR) have been proposed. However, only limited efforts have been made to systematically compare these models and to validate their performance in independent samples. Therefore, in this study we identified psychosis risk models based on information readily obtainable in general clinical settings, such as clinical and neuropsychological data, and compared their performance in the PRONIA study (Personalised Prognostic Tools for Early Psychosis Management, www.pronia.eu) as an independent sample.

Methods: Of the 278 CHR participants in the PRONIA sample, 130 had available data until month 18 and were included in the validation of eleven psychosis prediction models identified through systematic literature search. Discrimination performance was assessed with the area under the receiver operating characteristic curve (AUC), and compared to the performance of the PRONIA models. Psychosocial functioning was explored as an alternative outcome.

Results: Discrimination performance varied considerably across models (AUC ranging from 0.42 to 0.79). High model performance was associated with the inclusion of neurocognitive variables as predictors. Low model performance was associated with predictors based on dichotomized variables. Clinical raters performed comparable to the best data-driven models (AUC = 0.75). Combining raters’ prognosis and model-based predictions improved discrimination performance (AUC = 0.84), particularly for less experienced raters. One of the tested models predicted transition to psychosis and psychosocial outcomes comparably well.

Discussion: The present external validation study highlights the benefit of enriching clinical information with neuropsychological data in predicting transition to psychosis satisfactorily and with good generalizability across samples. Integration of data-driven risk models and clinical expertise may improve clinical decision-making in CHR for psychosis, particularly for less experienced raters. This external validation study provides an important step toward early intervention and the personalized treatment of psychotic disorders.

M122. DEPRESSION IN SCHIZOPHRENIA SPECTRUM DISORDERS: LONGITUDINAL COURSE AND THE RELATIONSHIP WITH OTHER CLINICAL PARAMETERS AND QUALITY OF LIFE

Lebogang Phahladira*,1, Laila Asmal1, Bonginkosi Chiliza2, Himal Luckhoff3, Stefan du Plessis1, Sanja Kilian4, Freda Scheffer1, Robin Emsley1

1Stellenbosch University; 2University of KwaZulu Natal

Background: The relationship between schizophrenia and depression is complex. Longitudinal studies on the course of depression in first episode schizophrenia populations are scarce and there are conflicting results on the predictive value of some baseline measures.

Methods: We conducted an open label longitudinal cohort study which included 126 patients with first-episode schizophrenia spectrum disorders treated with long-acting antipsychotic medication over 24 months. Depression was assessed at three monthly intervals using the Calgary Depression Scale for Schizophrenia. Changes in depression over time were assessed using the linear mixed-effect models for continuous repeated measures. The relationship between depression and other clinical parameters was assessed with regression models.

Results: Depressive symptoms were most prominent at baseline and showed highly significant reductions in the first three months (p<0.0001). Majority of the patients with depression improved with antipsychotic medication alone and we found associations between depressive symptoms with insight and poorer quality of life, however only illness awareness (p=0.0035) was the only significant predictor on depression in our regression analysis. There were a few differences between patients who experienced depression during the acute phase of treatment and those in the post-acute phase.

Discussion: Our findings suggest that depression in schizophrenia is common and generally responds well to treatment. The relationship between depression and insight has implications for further treatment considerations.