

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 inpatient 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 ($-2 \log \text{likelihood}=189.59$, $\chi^2=9.01$, $df=2$, $p=.021$) showed that the best predictive variables for relapse were lack of insight/judgment as assessed by PANSS item G12 at baseline ($B=.20$, $SE=.09$, $df=1$, $p=.011$, $\text{Exp}[B]=1.36$), lifetime years of substance use ($B=.16$, $SE=.11$, $df=1$, $p=.029$, $\text{Exp}[B]=1.33$), PANSS Factor baseline score on Disorganization ($B=.15$, $SE=.12$, $df=1$, $p=.031$, $\text{Exp}[B]=1.56$), and number of previous hospitalizations ($B=.13$, $SE=.11$, $df=1$, $p=.048$, $\text{Exp}[B]=1.23$). 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 Rosen^{*1}, Linda Betz¹, Alessandro Bertolino², Stefan Borgwardt³, Paolo Brambilla⁴, Katharine Chisholm⁵, Lana Kambeitz-Ilankovic¹, Theresa Haidl¹, Rebekka Lencer⁶, Eva Meisenzahl⁷, Stephan Ruhrmann¹, Raimo K.R. Salokangas⁸, Frauke Schultze-Lutter⁹, Rachel Upthegrove⁵, Stephen J. Wood¹⁰, Nikolaos Koutsouleris⁷, Joseph Kambeitz¹, PRONIA consortium⁷
¹University Cologne; ²University of Bari; ³University of Basel; ⁴University of Milan; ⁵University of Birmingham; ⁶Münster University; ⁷Ludwig-Maximilian-University; ⁸University of Turku; ⁹Heinrich-Heine University Düsseldorf; ¹⁰Orygen, the National Centre of 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, 150 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 prognosis of clinical raters. 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, Hilmar Luckhoff¹, Stefan du Plessis¹, Sanja Kilian¹, Freda Scheffler¹, 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



Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Rosen, M; Betz, L; Bertolino, A; Borgwardt, S; Brambilla, P; Chisholm, K; Kambeitz-Illankovic, L; Haidl, T; Lencer, R; Meisenzahl, E; Ruhrmann, S; Salokangas, RKR; Schultze-Lutter, F; Upthegrove, R; Wood, SJ; Koutsouleris, N; Kambeitz, J

Title:

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

Date:

2020-05-18

Citation:

Rosen, M., Betz, L., Bertolino, A., Borgwardt, S., Brambilla, P., Chisholm, K., Kambeitz-Illankovic, L., Haidl, T., Lencer, R., Meisenzahl, E., Ruhrmann, S., Salokangas, R. K. R., Schultze-Lutter, F., Upthegrove, R., Wood, S. J., Koutsouleris, N. & Kambeitz, J. (2020). M121. CLINICAL PREDICTION MODELS FOR TRANSITION TO PSYCHOSIS: AN EXTERNAL VALIDATION STUDY IN THE PRONIA SAMPLE. *Schizophrenia Bulletin*, 46 (Supplement_1), pp.S181-S181. <https://doi.org/10.1093/schbul/sbaa030.433>.

Persistent Link:

<http://hdl.handle.net/11343/273878>

File Description:

Published version

License:

CC BY-NC