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Introduction: In high-income countries, Coordinated Specialized Care for First Psychotic Episode (FEP) programs have been shown to be effective in reducing symptoms and disability. Chile guarantees universal access to these services through a national policy, but previous research indicates that evidence-based approaches are not used. Our team adapted the OnTrackNY (OTNY) program to the Chilean context, called OnTrackChile (OTCH), to evaluate its effectiveness and implementation. This summary presents preliminary results on model fidelity, one of the primary outcomes of the study.
Objectives: To evaluate the fidelity of the implementation of the OTCH program in comparison with usual care services for FEP, analyzing its compliance in 18 key domains of care and its alignment with the National Mental Health Plan.
Methods: A fidelity scale was designed to guide data collection on OTCH implementation. The scale included the name and definition of each domain, along with a set of expectations. The scale assessed 18 key domains, such as staffing, team integration, communication, burden of care, service flexibility, crisis, treatment planning, prescribing, care management, working with families, and education and employment support, among others. The scale was applied in the 5 OTCH intervention sites and 8 control sites that maintained usual care included in the cluster-randomized controlled clinical trial.
Results: OTCH sites met more than 80% of the criteria for the domains assessed in the fidelity scale, which is more than twice the compliance observed in the control sites. In domains related to the usual functioning of the centers coincident with those established in the National Mental Health Plan, OTCH intervention sites exceeded compliance standards to control sites ($p<0.001$). In situations where the frequency of problems was similar between both types of centers, such as suicidal risk and risky substance use, OTCH centers showed significantly better performance ($p<0.001$) compared to control centers.
Conclusions: The implementation of the OTCH model has not only allowed the introduction of specific aspects of the program, but has also improved the overall performance of the centers in key areas defined by the National Mental Health Plan. This suggests that the implementation of OTCH in the Chilean context is not only feasible, but can also improve the quality of community mental health care.
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Disclosure of Interest: None Declared

Schizophrenia and Other Psychotic Disorders

EPP173

Toward precision psychiatry: multimodal machine learning combining neurophysiological and language features to predict symptoms severity in schizophrenia

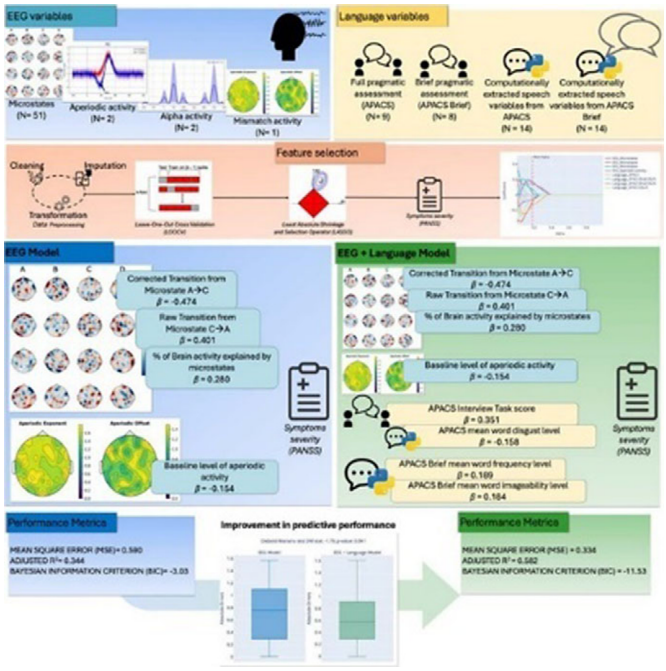
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Introduction: Capturing the complex and heterogeneous clinical phenotypes across Schizophrenia Spectrum Disorders (SSD) is still challenging and Artificial Intelligence is a promising tool. In the past years, machine learning (ML) models have been developed for diagnostic classification, highlighting both neuroimaging and language measures as relevant predictors (Zucchetti et al. It J of Psy (2024). Fewer studies focused on predicting symptom severity or quality of life, based on clinical variables, but with relatively low performance (Beaudoin, et al. Schizophrenia (2022); 8.1 29; Podichetty et al. Clin and Transl Sc (2021), 14(5), 1864-1874). However, to the best of our knowledge, no previous studies have applied ML regression tasks using neurophysiological features, nor combining them with language ones.
Objectives: The aim is to combine neurophysiological and language features via ML to predict symptoms severity in schizophrenia.
Methods: Forty-one individuals with a diagnosis of schizophrenia were enrolled and assessed for psychopathology, communicative-pragmatic abilities and underwent a 5-minute resting state EEG recordings.
A Least Absolute Shrinkage and Selection Operator (LASSO) regression was employed to identify significant EEG and language features, extracted through Natural Language Processing to predict symptoms severity. After feature selection, two LASSO models were built and compared: Model 1 (M1) included the most important EEG features, while Model 2 (M2) included both the most important EEG and language features.
Results: Feature selection led to the identification of main predictors, including EEG microstates and aperiodic activity, lexical-semantic features and imageability of words.
Both models reached an acceptable performance (MSE=0.590, adj. R^2= 0.344; MSE= 0.334, adj. R^2 =0.582), but the Diebold-Mariano test and BIC highlighted a significant difference between M1 and M2, indicating an improved performance in predicting symptoms, when adding language features. See Fig.1 for more details

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Image 1:



Conclusions: These preliminary results identify relevant features, confirming the role of EEG and language measures as potential biomarkers for SSD. Innovatively, data also show that EEG variables alone, can reliably but only partially predict psychopathology, while the inclusion of linguistic variables further improves the model. Overall, EEG and language measures, obtained quickly through simple tasks, appear as relevant features that may discriminate clinical outcomes within SSD and implementation of ML tools mat help to guide diagnosis and refine treatments.

Disclosure of Interest: None Declared

EPP174

Use of high doses of second-generation long-acting antipsychotics in the treatment of patients with severe resistant schizophrenia. A mirror-image study

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Introduction: This study explores whether high-dose treatment with SGA LAIs may benefit patients with schizophrenia who are inadequately controlled on a standard dose
Objectives: The objectives of this study have been to evaluate the retention, effectiveness and tolerability of high doses of second-generation antipsychotic long-acting injectable formulations (SGA LAI) in the treatment of patients with severe resistant schizophrenia.
Methods: A 72-month observational, mirror-image study of patients with severe (CGI-S ≥ 5) resistant schizophrenia receiving treatment with ≥75 mg of risperidone long-acting injectable (RLAI) (N = 60), ≥175 mg of monthly paliperidone palmitate (PP) (N = 60), and ≥600 mg of aripiprazole once-monthly (AOM) (N = 30). All of the patients were previously treated with at least two different APs, with poor outcomes. Patients were eligible if deemed likely to benefit from treatment with SGA LAIs: at risk of medication non-compliance, with a lack of effectiveness, or adverse effects with previous APs. The assessment included the CGI-S, the WHO-DAS, the Medication Adherence Rating Scale (MARS), laboratory tests, weight, adverse effects, reasons for treatment discontinuation, hospital admissions and suicide attempts.
Results: The average antipsychotic doses were: RLAI = 111.2 (9.1 SD) mg/14 days; PP = 231.2 (12.3 SD) mg eq./28 days; and AM = 780 (120 SD) mg/28 days.
Tolerability was good for all LAIs, reducing the side effects reported and the changes in biological parameters compared to previous treatments, especially in the AOM group. Weight and prolactin levels decreased in all LAI treatments; the reduction was statistically significant only among patients treated with AOM ($p < 0.05$). Two patients discontinued treatment due to side effects with AOM, five with PP and nine with RLAI .
There were four discontinuations with RLAI, two with PP, and one with AOM due to a lack of effectiveness. After three years, the scores decreased in CGI-S ($p < 0.01$) and in WHO-DAS in the four areas with all injectables. MARS increased with all LAIs ($p < 0.01$), especially with PP and AOM.
We report a statistically significant decrease in both hospital admissions ($p < 0.001$) and suicide attempts ($p < 0.001$) at the end of 36-month treatments, compared to the previous three years, without any difference across the three LAIs. In the previous three years, 60 patients discontinued their AP treatment, and 11 during the three-year follow-up ($p < 0.0001$
Conclusions: Our study indicates the good effectiveness and tolerability of RLAI, PP and AM at high doses. These SGA LAI treatments improved treatment adherence and outcomes of the patients, with good tolerability, helping them to achieve clinical stabilization and better functioning. Therefore, we suggest that, in some illness-critical conditions, high doses of SGA LAIs could represent an alternative to clozapine.

Disclosure of Interest: None Declared

EPP175

Exploring the Overlap: Content Analysis of Hallucination and Delusion Scales

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