pharmacotherapy (Marcellusi *et al.* BMJ Open 2018; 8, e018359). Considered the high economic burden that schizophrenia has on healthcare systems (estimated to be between 1.4 % and 3 % of the total), a better characterization of the clinical variables that mostly influence the costs represent a topic of great clinical interest (Altamura *et al.* 2014 Official Journal of the Italian Society of Psychopathology 2014; 20, 223–243).

Objectives: The aim of this study was to analyze whether duration of illness has an impact on the costs derived from the use of services (which account for the majority of the direct costs) in a cohort of subjects living with schizophrenia spectrum disorders (SSD).

Methods: A total of 496 subjects receiving treatment from the Community Mental Health Centers (CMHC) of Brescia (Italy) were included in the study: for each patient demographic data, data regarding the duration of illness (in months), and data related to the use of service between January 1st, 2022 and December 31st, 2022 were derived from the regional database of mental health ("SIPRL"). Data on the use of service were then converted to costs using the regional rate tables for outpatient services, residential and semi-residential facilities, and the Diagnosis-Related Groups (DRG)-driven rate tables for hospitalization data. Partial correlations analyses were performed between duration of illness, corrected for age, and cost-related variables. All analyses were performed through SPSS v28 and p values <0.05 were considered significant.

Results: A higher duration of illness was correlated with higher costs for outpatient non-pharmacological interventions (p=0.010), for residential facilities (p=0.025) and total costs, both including and excluding hospital admissions (p=0.005 and p=0.007, respectively), but not with hospitalization costs (p=0.773).

Conclusions: The total expenditure for people living with SSD is higher for people with a longer duration of illness. These findings raise an important issue, which is that the mental health system in Italy invests more in subjects with a longer history of disease: this is in contrast with the international guidelines which prompt to intervene early in the course of the disease in patients living with SSD with outpatient rehabilitation interventions.

Disclosure of Interest: None Declared

EPP0178

Evaluation of Relationship of Neutrophil/Lymphocyte, Platelet/Lymphocyte, Monocyte/Lymphocyte Monocyte/HDL Ratios and Systemic Immune Inflammatory Index Value with Antipsychotic Treatments in Schizophrenic Patients

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Introduction: There are studies showing that the systemic inflammation response in patients diagnosed with schizophrenia is different from healty controls. Neutrophil-lymphocyte ratio (NLR), platelet-lymphocyte ratio (TLR), monocyte-lymphocyte ratio (MLR), monocyte-HDL ratio (MHO) and systemic immune inflammation index (SII) have recently been used as inflammation indicators.

Objectives: NLR, TLR, MLR, MHO and SII have been evaluated in many studies in schizophrenia patients. The aim of our study is to evaluate the relationship between NLR, TLR, MLR, MHO, SII values and antipsychotic treatments of patients diagnosed with schizophrenia.

Methods: 203 individuals diagnosed with schizophrenia who were followed up in the psychotic disorders outpatient clinic of Selçuk University Faculty of Medicine were included in the study. Neutrophil, lymphocyte, platelet and monocyte counts and HDL values were obtained retrospectively from blood tests. NLR, TLR, MLO, MHO and SII were calculated. The study approved by the ethics committee of Selçuk University Faculty of Medicine.

Results: 45.3% of the patients were female (n = 92); the mean age was 45.8±14.0. The average number of hospitalizations was 3.0 ±2.7 years; the mean disease duration was 17.0±9.6 years. 56.7% (n=115) use long-acting antipsychotic treatment, 21% (n=43) use monthly paliperidone long-acting (PP1M) treatment, and 14.8% (n=30) use 3-month paliperidone long-acting (PP3M) treatment. No significant difference was observed in NLR, TLR, MLR, MHO and SII values between individuals using and not using long-acting antipsychotics. However, a significant difference in NLR value was observed between PP1M and PP3M treatment (p = 0.039). Oral antipsychotic use was 71% (n=137), 19% (n=38) used clozapine monotherapy, and 25% (n=51) used non-clozapine oral monotherapy. No significant difference was detected in inflammatory markers between clozapine monotherapy and other oral monotherapies.

Conclusions: According to our findings, NLR levels in patients diagnosed with schizophrenia were found to be significantly higher in those using PP1M treatment compared to those using PP3M. This finding can be interpreted in favor of the fact that PP3M contributes to the reduction of inflammation due to its longer duration of action compared to PP1M. It is thought that schizophrenia progresses through inflammatory processes and antipsychotic treatments play a role in anti-inflammation. It is envisaged that future studies may be helpful in evaluating the onset, exacerbation and remission periods of the disease, including treatment doses and durations, and revealing the relationship between inflammatory markers and schizophrenia disease and the effects of antipsychotic treatments on inflammatory markers such as NLR, TLR, MLR, MHO and SII.

Disclosure of Interest: None Declared

EPP0179

Machine Learning Analysis of Artistic Characteristics for Schizophrenia Classification

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Introduction: Schizophrenia is affecting multiple functions such as cognition, perception, emotion, and social behaviors, and it has also

been shown to influence artistic works created by patients. Among the deviations observed in the art works are distinct characteristics like delusional themes, disordered shorter lines, and unique creativity. Such features, along with altered pictorial perceptions and possibly altered motoric function, suggest that it might be possible to differentiate art made by schizophrenic patients from that of healthy individuals. Given the shortcomings of existing diagnostic methods being very long and with a 25% error rate, we proposed a novel neural network model that leverages these artistic markers for classification to support diagnosis.

Objectives: To develop and train a neural network model leveraging unique artistic markers for the classification and support of diagnosing schizophrenia.

Methods: Our study involved 764 participants, 45% diagnosed with schizophrenia, while the others were either healthy or diagnosed with other mental disorders. The average age of the participants was 38.25 years (SD=13.43), and 43.88% of the participants were females. All participants were instructed to draw eight drawings of human faces. These drawings were digitized and categorized based on participants' schizophrenia status to form the initial training dataset for our model. This data was processed using Python and converted into a NumPy array, which served as input for our model developed using the Keras library. The structure of the model is presented (Image 1).

Results: We used area under curve (AUC), specificity, and sensitivity as key evaluation metrics for our model. The model achieved an AUC of 0.90 on a test dataset that was new to the model and was not used in the preceding training phase. It exhibited a sensitivity of 0.84 and a specificity of 0.85, indicating its capacity to identify schizophrenic and non-schizophrenic individuals, respectively (Image 2).

Image:

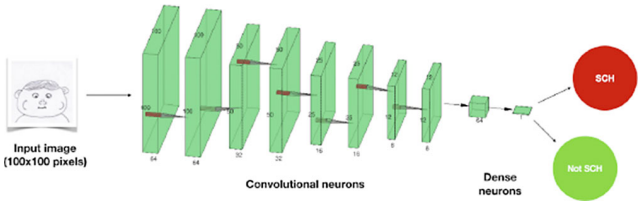
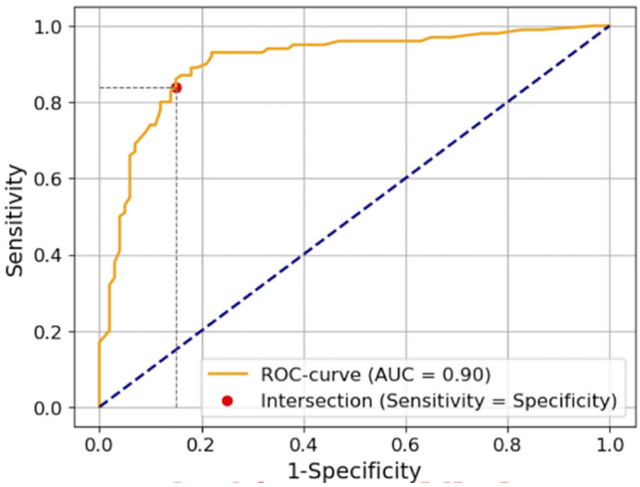


Image 2:



Conclusions: The application of machine learning and AI tools to analyze art created by schizophrenia patients, can offer a promising methodology for exploring the differences between schizophrenic and healthy individuals, as well as a possible support for current diagnostic methods. This approach has the potential to provide an additional fast and more accurate diagnosis, enhancing individualized patient care. Future research will focus on refining and validating the model across diverse populations and various art forms.

Disclosure of Interest: None Declared

EPP0180

Athens Multifamily Group Therapy Project (A- MFGT) after FEP: Preliminary clinical results

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Introduction: The Athens Multifamily Group Therapy Project (A-MFGT) aims to provide systemic multifamily therapy to youths who experienced a first psychotic episode and their families.

Objectives: Family interventions have been shown to reduce the likelihood of relapse for individuals across the spectrum of psychosis and are recommended in practice guidelines for psychosis internationally (Mc Farlane, 2016).

Methods: A group of 22 young adults who presented a first psychotic episode participated with their families to multi-family group systemic therapy, after discharged from in-patient treatment. Sessions were conducted by three therapists twice a month, for nine months and supervision meetings were provided once a month. Six groups of families have been conducted since 2017. Clinical outcome was assessed through PANSS at baseline, one month later after patient's discharge from in-patient treatment, and one year after, at the end of the multifamily group treatment. Time intervals till relapse were also assessed. Participants' clinical findings were compared with findings from a matched group of 42 patients who did not attend the multifamily therapy program and were treated as usual.

Results: Two-way mixed ANOVA was conducted to assess PANSS scores change over time (t1: at base line, t2: at one month and t3: one year), while differences were investigated between the two groups of patients and interactions were checked. Regarding PANSS-positive scale and PANSS-general scale, no differences were found between the two groups in neither of the three time points. Regarding PANSS-negative scale, patients attending MFGT presented statistically significantly lower scores in t3 than patients treated as usual, but not in t1 and in t2 (i.e., prior to therapy). Moreover, both patients' group showed improvement from t1 to t2, but only patients attending MFGT further improved from t2 to t3. Among patients attending MFGT, two (9.1%) had a relapse compared to nine (22.5%) of the patients treated as usual, however this comparison did not reach statistical significance (p = 0.300).