

**Introduction:** Everyday social interactions are based on Theory of Mind (ToM) or mentalizing, whose complex processes are involved in understanding, representing one's own and other people's mental states. ToM is supposed to have two systems. The implicit ToM seems to be a fast, automatic, non-verbal processing. The explicit ToM is characterized by a slower, but more flexible processing, which is mostly verbal, interpretative. Several studies have described explicit ToM deficit in schizophrenic patients. Less research has investigated implicit ToM in patients, however recently, there has been a growing number of articles examining implicit ToM of patients with schizophrenia.

**Objectives:** The aim of our systematic review and meta-analysis is to summarize the results of the implicit ToM in schizophrenia.

**Methods:** A systematic search was performed in four major databases. We included 11 publications. 7 studies; and 5 studies were included the quantitative synthesis and the qualitative synthesis, respectively.

**Results:** We found significant differences in accuracy, reaction time and brain activation patterns during implicit ToM between schizophrenic patients and controls. The systematic review revealed further alterations in visual scanning, cue fixation, face looking time, and difficulties in perspective taking.

**Conclusions:** Based on our results implicit ToM is affected in schizophrenia in addition to explicit ToM deficit. However, based on these results we cannot exclude the possibility, that implicit ToM or at least some elements of it might be relatively unaffected (e.g. detection of intentionality), however its effectiveness is limited by non-mentalizing deficits (e.g. certain neurocognitive impairments). Our results may have important implications for the remediation of mentalizing skills.

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**Keywords:** Theory of Mind; mentalizing; schizophrenia; implicit

## O0134

### Family aggregation of the Intelligence Quotient: understanding its role in first episode of psychosis

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**Introduction:** The familiarity of intelligence quotient (IQ), understood as its similarity among family members, might be related to different manifestations in first episode of psychosis (FEP) patients.

**Objectives:** To estimate the IQ familiarity through the intra-family resemblance score (IRS) in FEP patients and their unaffected first-

degree relatives; and to analyze if the deviation from the family-IQ is related to the patients' premorbid, clinical and cognitive characteristics.

**Methods:** Individuals from 129 families participated in this study (129 patients, 143 parents, 97 siblings). For each family, two values were estimated: the family-IQ, obtained by the mean IQ of the patient and his/her relatives (using the WAIS vocabulary subtest); and the IRS, an index previously reported that indicate intra-family heterogeneity (IRS<0) or homogeneity (IRS>0) for a given trait. According to the IRS and the family-IQ, patients were assigned to 6 groups (Figure 1).

**Results:** FEP patients in families with heterogeneous IQ (IRS<0) had a significantly lower IQ than their relatives (p<0.001). Also, those with low IQ and from heterogeneous families had poorer childhood adjustment (p=0.001). The patients with high IQ belonging to homogenous families showed less positive symptoms at baseline (p=0.009). FEP patients in homogenous families due to low IQ evidenced the lowest neuropsychological performance (Figure 2).

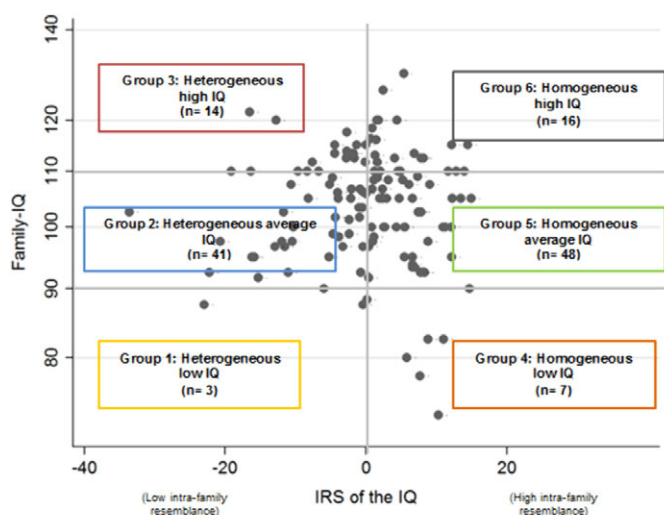


Figure 1. Distribution of FEP patients based on their IQ familiarity.

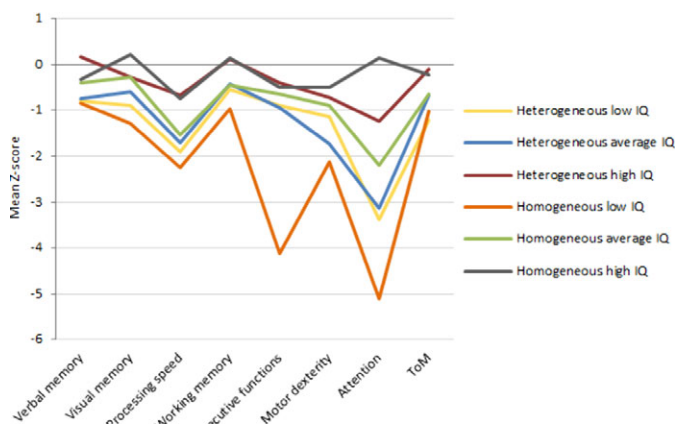


Figure 2. Neuropsychological comparisons of FEP patients

**Conclusions:** The analysis of the IQ familiarity and the concordance/discordance of the patients' and relatives' IQ, offers a new approach for the characterization of different premorbid, clinical and cognitive profiles in FEP patients. The relationship between deviation from the family-IQ and poor premorbid childhood adjustment supports the neurodevelopmental hypothesis of schizophrenia.

**Disclosure:** No significant relationships.

**Keywords:** Familial aggregation; Intelligence Quotient; Neurocognition; First episode of psychosis

O0135

**Altered dynamic functional topology in first-episode untreated patients with schizophrenia can aid in early diagnosis**

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**Introduction:** There is a growing consensus on brain networks that it is not immutable but rather a dynamic complex system for adapting environment. The neuroimaging research studying how brain regions work collaboratively with dynamic methods had demonstrated its effectiveness in revealing the neural mechanisms of schizophrenia.

**Objectives:** To investigate altered dynamic brain functional topology in first-episode untreated schizophrenia patients (SZs) and establish classification models to find objective brain imaging biomarkers.

**Methods:** Resting-state-functional magnetic resonance data for SZs and matched healthy controls were obtained(Table1).

**Table1**<sup>a,†</sup>  
Demographic and clinical characteristics of patients with schizophrenia and healthy controls. Continuous variables were given as mean ± SD.<sup>a,†</sup>

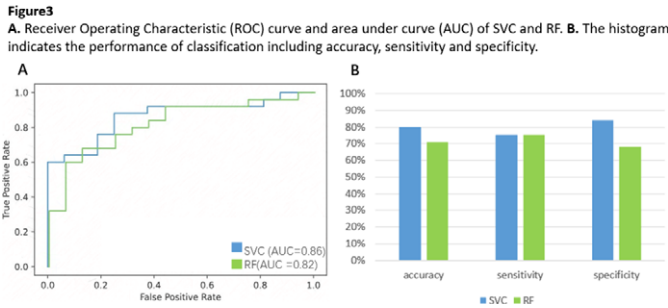
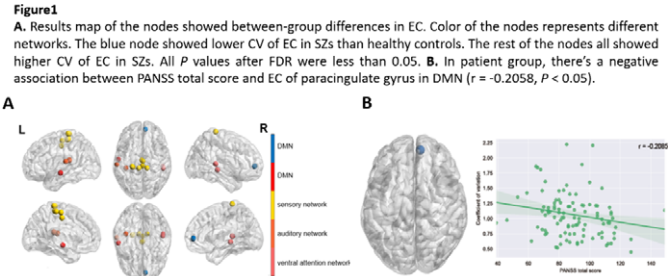
|                                     | schizophrenia (n=102) <sup>c,‡</sup> | healthy control (n=102) <sup>c,‡</sup> | t/χ <sup>2</sup> <sup>c,‡</sup> | P-value <sup>c,‡</sup> |
|-------------------------------------|--------------------------------------|----------------------------------------|---------------------------------|------------------------|
| Age (years) <sup>c,‡</sup>          | 25.31±7.76 <sup>c,‡</sup>            | 25.68±7.37 <sup>c,‡</sup>              | 0.342 <sup>a,‡</sup>            | 0.733 <sup>c,‡</sup>   |
| Gender (male/female) <sup>c,‡</sup> | 44/58 <sup>c,‡</sup>                 | 48/54 <sup>c,‡</sup>                   | 0.317 <sup>b,‡</sup>            | 0.574 <sup>c,‡</sup>   |
| Education (years) <sup>c,‡</sup>    | 12.80±2.76 <sup>c,‡</sup>            | 12.99±3.14 <sup>c,‡</sup>              | 0.450 <sup>a,‡</sup>            | 0.653 <sup>c,‡</sup>   |
| PANSS <sup>c,‡</sup>                |                                      |                                        |                                 |                        |
| Total score <sup>c,‡</sup>          | 89.13±18.21 <sup>c,‡</sup>           | — <sup>c,‡</sup>                       | — <sup>c,‡</sup>                | — <sup>c,‡</sup>       |
| positive symptoms <sup>c,‡</sup>    | 25.07±6.67 <sup>c,‡</sup>            | — <sup>c,‡</sup>                       | — <sup>c,‡</sup>                | — <sup>c,‡</sup>       |
| negative symptoms <sup>c,‡</sup>    | 18.25±8.54 <sup>c,‡</sup>            | — <sup>c,‡</sup>                       | — <sup>c,‡</sup>                | — <sup>c,‡</sup>       |

<sup>a</sup>, two-sample t-test; <sup>b</sup>, chi-square test. <sup>c,‡</sup>  
Abbreviations: PANSS, Positive and Negative Syndrome Scale.<sup>c,‡</sup>

Power-264-template was used to extract nodes and sliding-window approach was carried out to establish functional connectivity matrices. Functional topology was assessed by eigenvector centrality(EC) and node efficiency and its time-fluctuating was evaluated with coefficient of variation(CV). Group differences of dynamic topology and correlation analysis between Positive and Negative Syndrome Scale(PANSS) scores and topology indices showing group differences, which also were used in establishing classification models, was examed.

**Results:** The CV of node efficiency in angular and paracingulate gyrus was larger in SZs. There are 13 nodes assigned into several

brain networks displaying altered CV of EC between groups(Figure1.A). Fluctuation of EC of the node in DMN, which was lower in SZs, showed negative correlation with PANSS total scores(Figure1.B). Dynamic functional topology of above nodes was used to train classification models and demonstrated 80% and 71% accuracy for support vector classification(SVC) and random forest(RF), respectively(Figure2).



**Conclusions:** Dynamic functional topology illustrated a capability in identifying SZs. Aberrated dynamics of DMN relevant to severity of patient's symptoms could reveal the reason why it contributed to classification.

**Disclosure:** No significant relationships.

**Keywords:** Positive and Negative Syndrome Scale scores; schizophrenia; classification; dynamic functional topology

O0136

**Change people attitudes towards schizophrenia using a short video**

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**Introduction:** Social contact-based video interventions effectively reduce stigma toward individuals with psychosis.