

Introduction Stigma towards people with mental illness can have very negative consequences for the persons that experience it. So, it becomes strongly necessary to combat this problem.

Objectives/Aims Evaluate the effectiveness of multiple interventions to reduce stigma against mental illness in a group of high school students.

Methods Quasi-experimental study. Seventy-six students between 16 to 19 years old from 3 schools of southern Madrid State participated. No significant differences in age and gender between groups were found. The quasi-control group was obtained from 3 different classrooms (1 in each school). This group did not go through any treatment. The experimental group had 2 treatments. Treatment "A" consisted in 1 psychoeducation session. Treatment "B" was 1 visit (real or virtual) to the Thyssen-Bornemisza museum. Persons exercising as museum guides had been diagnosed with mental illness. They already were participants in the PCEA program of the CRPS Latina. The instrument to assess stigma was the AQ-27, validated in Spanish.

Results We found significant reductions of stigma in all dimensions explored: Anger (A vs BC; $P < 0.001$), Threat (A vs BC; $P < 0.001$), Fear (A vs BC; $P < 0.001$), Coercion (A vs BC; $P < 0.001$) Segregation (A vs BC; $P < 0.001$) and Avoidance (A vs BC; $P < 0.001$).

Conclusions The combination of treatments for intervention on stigma in samples of school students seems to be a very effective option to reduce stigma.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW505

Avolition in schizophrenia: associations with trait and state anhedonia

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Introduction Current research suggested that avolition in patients with schizophrenia (SCZ) is not due to a deficit of hedonic experience, but to a poor ability to translate pleasurable experiences into motivational states. In line with this hypothesis, several evidences showed a preserved hedonic experience, even in the presence of severe trait anhedonia and avolition in SCZ.

Objectives To test the hypothesis that memory dysfunction, generally found in SCZ, could lead to inaccurate representations of emotional experiences and interfere with translation of pleasurable experience in motivation.

Aims The present study was aimed to investigate the relationships between state and trait anhedonia, avolition and cognitive functioning in 35 SCZ.

Methods In SCZ and matched healthy controls (HC) the Temporal experience of Pleasure (TEPS) and Chapman's scales were used to assess trait anhedonia. The MID task was used to assess in-the-moment hedonic experience. Avolition was measured by the Schedule for the Deficit Syndrome. MATRICS Consensus Cognitive Battery was used to assess cognition.

Results SCZ did not differ from HC on TEPS or on MID task performance but reported higher scores for trait social anhedonia. Trait social anhedonia was associated with memory dysfunction and showed a correlation with avolition.

Conclusions Our results confirm the disjunction between state and trait anhedonia and demonstrate a relationship of the latter with memory impairment and avolition, suggesting that inaccurate representations of emotional experiences might impede their translation in motivation to act.

Disclosure of interest The authors have not supplied their declaration of competing interest.

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EW506

Relation between EEG source functional connectivity and the negative symptom severity in schizophrenia: a preliminary report from a multicentre study

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Introduction Neural dysconnectivity is hypothesized to be a key element in pathophysiology of schizophrenia. However, the relation of disordered connectivity with the different clinical characteristics of the syndrome is not fully elucidated.

Objectives The current research investigated the relations between resting-state EEG Source Functional Connectivity (EEG-SFC) and the two main clusters of negative symptoms derived from the Brief Negative Symptom Scale, the Expressive Deficit (ED) and the Avolition (AV), in subjects with schizophrenia (SCZ) enrolled to the multicentre study of the Italian Network for Research on Psychoses.

Methods Out of 97 chronic, stabilized SCZ included, we selected subjects according the lower and the upper quartile of the ED and AV value distribution: 25 were in upper and 24 in the lower quartile of ED (respectively, HIGH-ED and LOW-ED); 27 were in upper and 24 in the lower quartile of AV (respectively, HIGH-AV and LOW-AV). Fifty-five healthy controls (HC) were included, comparable to SCZ for gender, age and educational level. EEG-SFC analysis was based on the lagged phase synchronization (LPS) computed by eLORETA from 5 minutes resting-state EEG recordings in eyes closed condition. LPS indices were determined for each spectrum band and between all 28 regions of interest (ROI) pairs. Group differences were significant for corrected P -value < 0.05 .

Results SCZ had higher theta band LPS than HC. Respect to LOW-ED, HIGH-ED showed significant increased alpha LPS in fronto-cingulate, para-hippocampal and insular inter-hemispheric ROI pairs. No significant difference emerged between HIGH-AV and LOW-AV.

Conclusions Subgrouping SCZ according to negative symptom severity reveals heterogeneous patterns of resting-state LPS connectivity.

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EW507

Low erythrocyte glutathione peroxidase activity in schizophrenic patients is mediated by gender, the number of episodes, disease duration and drug treatment

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Introduction Inconsistent data showed that erythrocyte glutathione peroxidase (GPx) activity in schizophrenics is altered.

Aim The aim of this study was to evaluate whether some of the demographic, clinical and therapeutic factors had any significant impact on erythrocyte GPx activity in patients with schizophrenia.

Methods This study included 68 schizophrenic patients and 59 healthy individuals. GPx activity was tested related to patient age, gender, heredity, the onset of the disease, the duration of the disease, the number of episodes, PANSS scores and drug treatment. GPx activity was determined in erythrocyte hemolysates by Ransel commercially available test.

Results Erythrocyte GPx activity was significantly lower in patients with schizophrenia than in controls. Male patients had significantly lower GPx activity in comparison with those in female ones. Heredity negative patients showed significantly lower enzyme activity compared to control values. Significantly lower GPx activity was obtained independently of the onset of the disease. The patient group having more than one psychotic episode also showed significantly lower GPx activity compared to the control group. The disease duration of more than 1 year caused a significant decrease in enzyme activity. There was a significant difference in GPx activity between patients with different PANSS scores. In patients treated with second generation antipsychotics and in those treated with both first and second generation antipsychotics, GPx activity was significantly lower than in controls.

Conclusion This study shows that the low erythrocyte GPx activity in schizophrenics depends on patient gender, the number of episodes, disease duration and drug treatment.

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EW508

Exploration of the link between clinical judgments and subjective perceptions of clinical change in patients treated for schizophrenia

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Introduction Subjective perceptions of clinical change in patients with schizophrenia are often not congruent to the objective evidence of the same, especially since a lack of insight is part of the symptomatology. However, the exploration of the relationship between clinical judgments from mental health experts and the patients' perception of symptom change is fairly understudied.

Aims and objectives This study aimed to investigate the performance of the Positive and Negative Syndrome Scale (PANSS) as a tool for clinical outcome monitoring in schizophrenia in concordance with the change of self-reported psychopathology assessed with the Frankfurt Complaint Questionnaire (FCQ) in patients with a schizophrenia.

Methods A consecutive sample of patients admitted to a Swiss psychiatric hospital for schizophrenia was assessed with the FCQ at admission and discharge. The PANSS was rated by the responsible clinicians at admission and discharge. Complete data of admission and discharge were available from approximately 60 cases. Reliable change index (RCI) was calculated to determine a clinically meaningful change based on the PANSS scores. Logistic regression models were conducted to explore the link between RCI levels and the change of self-reported perceptions of psychopathology.

Results and conclusions Our study found no relationship between the change of PANSS and FCQ from admission to discharge in a sample of patients treated for schizophrenia. Therefore, our findings provide evidence for a large discrepancy between the observed clinical severity and the subjective perception of symptoms in individuals with schizophrenia.

Keywords Positive and Negative Syndrome Scale; Frankfurt Complain Questionnaire; Schizophrenia; Outcome monitoring; Subjective perception

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EW510

Anti-DNA antibodies in the blood of patients with schizophrenia possess DNA-hydrolyzing activity

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Introduction Autoantibodies (Abs) to different neuronal receptors and DNA were detected in the blood of patients with schizophrenia. Abs hydrolyzing DNA were detected in pool of polyclonal autoantibodies in autoimmune and infectious diseases, such catalytic Abs were named abzymes.

Objectives To investigate the level of anti-DNA antibodies and DNA-hydrolyzing activity of IgG from the serum of patients with schizophrenia depending on leading clinical symptoms.

Aims – To measure the concentration of anti-DNA Abs in serum of patients with leading positive and negative symptoms; – to determine DNA-hydrolyzing activity of IgG.

Methods In our study, 51 patients were included. The levels of antiDNA Abs were determined using ELISA. DNA-hydrolyzing activity was detected as the level(%) of supercoiled pBluescript DNA transition in circular and linear forms. Statistical analysis was performed in "Statistica 9.0".

Results Anti-DNA Abs of patients with schizophrenia not only bind DNA, but quite efficiently hydrolyze the substrate. IgG of patient with schizophrenia were shown to possess DNA hydrolyzing activity. It should be noted that DNAase activity of IgG in patients with schizophrenia with a negative symptoms was significantly higher, than in patients with positive symptoms (Table 1).

Conclusions The data show a correlation with the level of DNase activity and leading symptoms of patients with schizophrenia.

Table 1 Concentration of anti-DNA Abs and relative hydrolysis of DNA in different groups of patients with schizophrenia.

Groups of patients	Concentration of anti-DNA Abs U/mL (M ± SD)		Relative hydrolysis of DNA(%)
	Anti-ssDNA	Anti-dsDNA	
Healthy donors (n = 24)	7.4 ± 2.7	6.9 ± 0.9	9,1 ± 6,5
Total group of patients with schizophrenia (n = 51)	6.9 ± 3.7	7.4 ± 3.7	55.4 ± 32.6*
Positive symptoms (n = 25)	7.2 ± 4.1	5.3 ± 3.05	43.3 ± 33.1
Negative symptoms (n = 26)	5.4 ± 2.4*	7.9 ± 4.5	73.3 ± 23.8**