

**Conclusions:** In conclusion, our study investigated the characteristics of verbal fluency in a transdiagnostic approach. While phonemic fluency did not reveal significant differences among the three groups, our analysis of semantic fluency unveiled a distinction. Specifically, individuals with schizophrenia exhibited impaired semantic word productivity. Our study highlights the complex nature of verbal fluency impairments in different conditions and the importance of considering more nuanced methods when assessing cognitive functions.

**Disclosure of Interest:** None Declared

## O0105

### Evaluation of The Relationship of Circular RNA With Suicide Behavior In Patients Diagnosed With Schizophrenia and Other Psychotic Disorder

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doi: 10.1192/j.eurpsy.2024.227

**Introduction:** Schizophrenia is a major mental disorder with a high risk of suicide, which is one of the leading causes of early death in schizophrenia patients. It is known that suicidal behavior is 20-50 times higher in schizophrenia patients compared to the general population. Clinical features makes it difficult to determine the risk of suicide in this patient group. Since genetic studies on suicides of patients with schizophrenia are limited, this area was deemed worthy of research.

**Objectives:** CircRNAs can potentially serve as minimally invasive biomarkers because they can freely cross the blood-brain barrier. It is aimed to define the effect of circRNA molecules on suicidal behavior in patients diagnosed with schizophrenia and other schizophrenia spectrum psychotic disorders, and to increase protective and preventive approaches by predicting possible consequences of suicidal behavior.

**Methods:** 104 patients followed up with the diagnosis of schizophrenia and other schizophrenia spectrum psychotic disorders were included in the study. RNA was isolated from the blood taken into a hemogram tube, and three circRNA molecules were identified using a number of RNA sequencing techniques. In addition, socio-demographic characteristics of the participants, clinical features of the disease, suicidal behavior history, current treatment status were questioned in detail. Simultaneously, the current clinical status was evaluated with clinical evaluation scales as Positive and Negative Syndrome Scale (PANSS), Calgary depression scale for schizophrenia (CDSS), Suicide Probability Scale (SPS), Beck Suicidal Intent Scale (BSIS).

**Results:** Three circRNA molecules were identified, chr3\_196488683, chr5\_69175537 and hsa\_circ\_0084021. No significant difference was found between these molecules and past suicide attempts. It was found that chr5\_69175537 was negatively associated with the age of onset of psychotic disorder negative symptoms, and hsa\_circ\_0084021 was negatively associated with the age of onset of both negative and positive symptoms. When the relationship between the clinical assessment scales and suicidal behavior was evaluated, the PANSS general symptoms subscale score was significantly higher in the group with suicidal behavior

( $p < 0.05$ ). CDSS mean scores and BSIS scores were also found to be significantly higher in the group with previous suicide attempts ( $p < 0.01$ ).

**Conclusions:** Although our findings do not allow definitive conclusions due to the complex interaction between epidemiological and clinical factors and limited literature, it has shown that schizophrenia contains many risks that increase suicidal behavior. To predict suicide, circRNA molecules need to be supported by prospective studies with large sample groups and comparison with control groups.

**Disclosure of Interest:** None Declared

## O0106

### Serum d-serine and d-amino acid oxidase (DAO) levels in schizophrenia and related psychotic disorders: a 6-month follow-up study

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doi: 10.1192/j.eurpsy.2024.228

**Introduction:** D-serine and the DAO enzyme may impact the NMDA receptor and contribute to schizophrenia, but the exact role and outcomes are not fully understood due to the complexity of the disorder.

**Objectives:** We analyzed serum levels of d-serine and DAO in untreated individuals with schizophrenia during acute psychotic episodes. We correlated these factors with clinical characteristics and compared results to a healthy control group. We also examined any differences after six months of treatment.

**Methods:** The study involved 89 patients with schizophrenia or related psychotic disorders who were hospitalized due to psychotic episodes. Also, the study had 81 healthy participants matched in terms of gender, age, and smoking status with the patient group. PANSS, CGI, GAS, CDSS, and MoCA were applied to determine the severity of the disease. Serum d-serine and DAO levels were measured by ELISA kits.

**Results:** During an acute psychotic episode, patients had significantly lower levels of D-serine, DAO, and D-serine/DAO ratio compared to healthy individuals ( $Z=6.52$ ,  $p < 0.001$ ;  $Z=4.54$ ,  $p < 0.001$ ;  $Z=2.90$ ,  $p=0.004$ ). Although DAO and D-serine levels increased with symptom regression after six months of treatment, the D-serine and D-serine/DAO ratios were significantly lower in patients than in healthy individuals ( $Z=3.52$ ,  $p < 0.001$ ;  $Z=3.44$ ,  $p < 0.001$ ). There was no correlation between the change in D-serine level and the change in scale scores. However, there was a negative correlation between the change in DAO level and the change in PANSS total ( $r=-0.681$ ,  $p=0.000$ ), anxiety scores ( $r=-0.336$ ,  $p=0.032$ ), and Calgary depression score ( $r=-0.547$ ,  $p=0.000$ ). There was a positive correlation between the change in D-serine/DAO ratio and the change in the Calgary depression scale score ( $r=0.353$ ,  $p=0.024$ ) in addition to PANSS positive ( $r=0.395$ ,  $p=0.011$ ) and total scores ( $r=0.585$ ,  $p=0.000$ ). Antipsychotic doses negatively correlated with the changes in DAO level ( $r=0.421$ ,  $p=0.01$ ). It was found that the female patients had significantly lower levels of DAO than the female healthy subjects ( $Z=-5.061$ ,  $p < 0.001$ ).