

**[Abstract:0311] Schizophrenia and other psychotic disorders****The alteration of facial emotion recognition ability after clozapine use in patients with treatment-resistant schizophrenia**

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**Objective:** In the literature, a deficit in facial emotion recognition in schizophrenia is usually reported, which may be considered in relation with impairments in social and work functioning and independent living. Interestingly, this deficit is mentioned in medication-free patients with schizophrenia or in individuals at risk for developing a psychosis. Clozapine has been reported to have beneficial effects on attention, executive functions, and working memory and is recommended for the management of treatment-resistant schizophrenia. Here we investigated changes of facial emotion recognition ability after clozapine use in patients with treatment resistant schizophrenia.

**Methods:** Twelve inpatients with treatment-resistant schizophrenia (F=7, M=5) were included in the study who were of an average age of  $33.25 \pm 9.17$  years. The patients were evaluated in the basal state and 4-5 months later according to Facial Emotion Recognition Test of Ekman's series and PANSS. Wilcoxon Signed Rank Test was used.

**Results:** The mean dose of clozapine was  $287.50 \pm 77.23$  mg/day. The mean positive score ( $21.50 \pm 6.23$  vs  $10.78 \pm 2.86$ ), the mean general psychopathology score ( $38.83 \pm 7.50$  vs  $25.67 \pm 5.93$ ) and the mean total score ( $82.50 \pm 18.47$  vs  $53.67 \pm 11.74$ ) according to PANSS were significantly improved after clozapine treatment ( $p < 0.05$ , for each). There were no significant differences between basal state and after clozapine treatment according to recognition of facial emotion expressions ( $p > 0.05$  for each). There were no significant differences between basal state and after clozapine treatment according to required time to recognize facial emotion expressions ( $p > 0.05$  for each).

**Conclusion:** In one study, the accuracy rate of facial emotion recognition was not significantly different between healthy controls ( $n=15$ ) and patients with treatment-resistant schizophrenia who were receiving a  $470 \pm 173$  mg/day dose of clozapine. However, the basal accuracy rates according to facial emotion recognition were lacking and the authors did not discuss the change of facial emotion recognition ability after clozapine use. Interestingly, in a study, no differences between first or second generation antipsychotic drugs or within each group (i.e., olanzapine vs clozapine) were revealed in patients with schizophrenia according to facial emotion recognition ability. The improvement in negative symptoms is suggested to have a positive impact on facial emotion recognition ability. Thus, we consider that either the clozapine does not affect facial emotion recognition ability, although there is a definite influence on positive and general psychopathology, or clozapine did not improve facial emotion recognition ability because of ineffectiveness with negative symptoms as in our study.

**Keywords:** clozapine, facial emotion recognition, schizophrenia

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**[Abstract:0443] Schizophrenia and other psychotic disorders****Alternative and complementary treatment use in patients with schizophrenia: a study from Turkey**Ethem Soyucok<sup>1</sup>, Ahmet Ozturk<sup>1</sup>, Halil Ibrahim Guzel<sup>2</sup>, Bulent Bahceci<sup>3</sup>, Ismail Volkan Sahiner<sup>4</sup>, Hasan Mayda<sup>5</sup>, Abdullah Akpinar<sup>6</sup>, Erman Bagcioglu<sup>7</sup>

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**Objective:** The aim of this study is to examine the prevalence and characteristics of complementary and alternative medicine (CAM) use in Turkish people with schizophrenia.

**Methods:** This cross-sectional survey of patients with schizophrenia was carried out in the cities of Rize, Kutahya, Isparta, Afyon, and

Ankara in Turkey. Three hundred and sixty-six patients with a diagnosis of schizophrenia confirmed by clinical assessment in the psychiatric outpatient clinics were recruited to the study. Survey questionnaire was administered face-to-face by psychiatrists

**Results:** Results of the 366 patients with schizophrenia in the study, 117 patients (32%) stated that they had used at least one CAM therapy in the last six months, while 249 (68%) patients stated that they had not used CAM. Younger age, female, living in rural areas and shorter disease duration appear to be related to CAM use in schizophrenia patients. The most common type of CAM used was spiritual healing by others (58.5%). To cope with schizophrenia (55.9%) was the most common reason cited for CAM users.

**Conclusion:** Almost one third of patients with schizophrenia use CAM therapies in Turkey. This should be investigated and taken into account by psychiatrists.

**Keywords:** complementary therapies, alternative therapies, schizophrenia

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### [Abstract:0473] Schizophrenia and other psychotic disorders

## Comparing cognitive functions of smoking and non-smoking patients with schizophrenia

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**Objectives:** Patients suffering from schizophrenia have a high prevalence of cognitive function impairments even though they are in remission. Schizophrenia is associated with cognitive deficits including verbal learning and memory, attention, problem solving, visual learning and memory, executive function and working memory. Available data suggests that dysregulation of the neuronal nicotinic acetylcholine receptor (nAChR) system contributes to the pathophysiology of schizophrenia and nAChR stimulation has a positive effect on cognitive functions in schizophrenia. It is known that the frequency of smoking in schizophrenic patients is higher than in the normal population and the cessation of smoking is more difficult in these individuals. One of the major reasons for this situation lies in the beneficial neuropsychological effects of nicotine provided to patients with schizophrenia. This study aimed to compare cognitive functions of smokers and non-smoking patients with schizophrenia by using neurocognitive tests.

**Methods:** The study sample consisted of 58 smokers (mean age: 35.32±8.26; education level: 9.36±3.12 years) and 40 non-smokers (mean age: 35.17±7.35; education level: 9.00±2.99 years) patients diagnosed with schizophrenia (SCZ) who were in a follow-up program at Sakarya University Education and Research Hospital. All participants were made to perform Trail Making Test (TMT), Stroop Color Word Test (SCWT), Rey Auditory Verbal Learning Test (VLT) and the Wechsler Memory Scale-Visual Production Subscale (WMS-V) to measure their neurocognitive functions.

**Results:** There were no statistically significant differences between groups regarding mean age, gender, average education period, age of illness onset and duration of illness. There was no significant difference between SCZ smokers and non-smokers in TMT-A time, but SCZ smokers significantly performed TMT-B in a shorter time. There were no significant differences between SCZ smokers and non-smokers in response times of Stroop 1 (reading the color words colored in different ink) and Stroop 2 (saying the names of colors written in different ink), the number of word corrections and word errors associated with Stroop 1 and Stroop interference. Significant group differences were found just only for the number of color corrections and color errors associated with Stroop 2 where SCZ non-smokers were observed to have more difficulties. The differences in VLT and WMS-V between two groups were significant. SCZ smokers were observed to perform higher than SCZ non-smokers in highest learning scores, total learning scores and long-term memory scores of VLT sub-tests and WMS-visual memory scores.

**Conclusions:** In general, this study revealed that the differences in impairments of cognitive skills between the two groups were significant in favor of SCZ smokers. There is evidence to suggest that SCZ smokers performed better than the non-smokers group, particularly in the tests measuring attention, verbal and visual memory, and working memory. These findings, consistent with previous studies, supported the 'self-medication hypothesis' for smoking in schizophrenia which assumes patients' trying unconsciously to improve cognitive deficits of schizophrenia by nicotine administration.

**Keywords:** cognition functions, schizophrenia, smoking

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