

## P-520 - COGNITIVE PERFORMANCE AND CIGARETTE SMOKING IN PATIENTS WITH MOOD DISORDERS

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**Introduction:** In patients with Schizophrenia an association between smoking and improvement in cognitive deficits was found. Patients with Major Depressive Disorder (MDD) and Bipolar Disorder (BD) have shown a high prevalence of smoking habit and cognitive deficits but only a few studies have investigated the effect of smoking on their cognitive functions.

**Objectives:** To study the effect of nicotine assumption on cognitive function in MDD and BD.

**Methods:** 50 inpatients with MDD and 50 with BD (Major Depressive Episode) underwent a neuropsychological test battery (Anna Pesenti test, Attentive Matrices, Rey-Osterrieth Complex Figure, Phonemic/Semantic Fluency tests, Token test) at the beginning of their hospitalization. Smoking habit (current, lifetime) was investigated by specific questionnaires. Factorial ANOVA models were applied, with cognitive test scores as dependent variables and smoking (smoker/non-smoker) and diagnosis (MDD/BD) as factors.

**Results:** Smokers showed significantly better performance in verbal memory ( $p < 0.001$ ) and fluency tests (phonemic  $p = 0.012$ ; semantic  $p = 0.023$ ) than non-smokers. Significant and positive correlations were found between the scores of these tests and the number of cigarettes smoked in the 24 hours before, while no associations with the years of smoking habit were found. No effects of diagnosis or interaction between smoking and diagnosis on the cognitive performance were found.

**Conclusions:** Animal models show that nicotine can increase the monoamine levels in brain areas involved in memory and language functions. Our results suggest that the positive effect of smoking on cognitive functions may contribute to increase the smoking habit in patients with Mood Disorders as a self-medication strategy.