P02-243 - **NEUROCOGNITION AND TEMPERAMENT IN BORDERLINE AND SCHIZOTYPAL PERSONALITY DISORDER**

**H.A. Berlin**, H. Hamilton, K. Rogers, K.E. Goldstein, L.J. Siever, A.S. New, E.A. Hazlett

*Psychiatry, Mount Sinai School of Medicine, New York, NY, USA*

**Objective:** Explore the neurocognitive and temperament profile of borderline personality disorder (BPD) and schizotypal personality disorder (SPD) to better understand their underlying neurobiology for improved treatment.

**Methods**: 17 BPD, 16 SPD, and 15 healthy controls (HCs) were given a comprehensive neuropsychological battery (CANTAB), the Iowa Gambling Task, a time perception task, and questionnaires of impulsivity, temperament, emotion, and frontal behavior (measures orbitofrontal cortex (OFC) dysfunction).

**Results:** BPD and SPD patients performed significantly worse on the delayed match to sample (DMS) task compared to HCs, but had preserved function on decision-making, planning, time perception and attention tasks. SPD patients performed significantly worse on spatial working memory (SWM) tasks, and had higher religious commitment scores than HC and BPD groups, which correlated with their SWM deficits. BPD patients had significantly more frontal behaviors and emotions than both groups, which correlated with their emotionality, impulsivity, BPD symptoms, and temperament traits.

**Conclusions**: Both BPD and SPD groups had a deficit on the DMS task, sensitive to medial temporal lobe (MTL) dysfunction, but only SPD patients had SWM deficits, indicative of dorsolateral frontal cortex (DLFC) dysfunction, which correlated with their high religious commitment in line with their odd beliefs and magical thinking. Only BPD patients had frontal behavior deficits, related to OFC dysfunction, which positively correlated with their emotionality, impulsivity, and temperament traits. While both disorders may have a deficit in MTL function, DLFC dysfunction may contribute to SPD symptoms, and OFC dysfunction to BPD symptoms, suggesting treatment should target unique prefrontal cortex regions respectively.

https://doi.org/10.1016/S0924-9338(10)70869-5 Published online by Cambridge University Press