

## STUDY ON THE EXECUTIVE FUNCTION AND LEARNING ABILITY OF THE FIRST-EPISEODE SCHIZOPHRENIA

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**Objectives:** To investigate the executive function and learning ability of the patients with first-episode schizophrenia, and its relationship with the patients' clinical symptoms.

**Methods:** 50 schizophrenia patients and 50 healthy controls were tested by the Tower of London(TOL). All the subjects received two phases of the test of TOL continuously, with a break of 1 minute. And Positive and Negative Symptom Scale (PANSS) was used to assess the clinical symptoms of the patients.

**Results:** Compared with the control group, the number of reply during the 1<sup>st</sup> phase ( $x_1$ ) and the 2<sup>nd</sup> phase ( $x_2$ )of the patients group, was lower ( $P < 0.01$ ); the reaction time during the 1<sup>st</sup> phase ( $t_1$ ) and the 2<sup>nd</sup> phase ( $t_2$ ) was longer ( $P < 0.01$ ); while the rate of correct answer during the 1<sup>st</sup> phase ( $p_1$ ) and the 2<sup>nd</sup> phase ( $p_2$ ) do not differ. For the control group,  $x_2$  was higher than  $x_1$  ( $P < 0.01$ ), and  $t_2$  was shorter than  $t_1$  ( $P < 0.01$ ). However, for the schizophrenia group, there were no difference between  $x_1$  and  $x_2$ ,  $t_1$  and  $t_2$ . The value of  $x_1$ ,  $p_1$ ,  $x_2$  of the patients were correlated negatively with the PANSS negative subscale score ( $P < 0.05$ ), and  $t_1$  and  $t_2$  were correlated positively with the the negative subscale score ( $P < 0.01$ ). The performance of the TOL did not correlated with the PANSS positive subscale score and general psychopathology subscale score.

**Conclusion:** The executive function and learning ability of the schizophrenics are impaired and the impairment of the cognitive function is significantly correlated with the negative symptoms of schizophrenia patients.