

## **Abstract**

Cognitive flexibility can be described as adaptive ability to change one's behavior in response to the environment. Psychological tests measure cognitive flexibility mainly as an ability to switch between different cues, tasks or objects. This thesis is focused on cognitive flexibility in patients with obsessive compulsive disorder (OCD). To assess it, participants were tested in two different virtual tests of cognitive flexibility in spatial navigation task: Active allothetic place preference and Active allothetic place avoidance. In one of the tests participants have to navigate in rotating arena towards invisible goal (AAPP). In the other one they have to avoid invisible sector where time is counted upon entering (AAPA). As the sector and goal are visually imperceptible, participants have to use only cues inside and outside the arena and are also informed about entering the sector by sound signal. The sector changes its position from stable position in room frame to stable position in arena frame between conditions. Therefore, participants have to learn to switch between room and arena frame to successfully solve the task. Results of this study suggest that OCD patients are significantly worse in estimating position of the goal in AAPP, especially after change of condition. Further comparison of OCD patients with predominant „checking“ symptoms and predominant „washing“ symptoms revealed that patients with „checking“ symptoms had shorter trial times, but their performance started to get significantly better no sooner than in 4th trial in every condition. On the other hand, patients with „washing“ symptoms improved most from the first to third trial, which implies they started to learn more quickly. Symptom severity positively correlated with time in to-be-avoided sector in second condition of AAPA. Results suggest worse performance of OCD patients in some parameters of presented tests and most importantly indicate differences between OCD symptom dimensions.