



## *Cognitive rehabilitation of working memory and attention in bipolar disorder: A case study*

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### ***Abstract***

**Introduction:** Working memory and attentional problems have been identified as a core cognitive deficit in bipolar disorder. The purpose of this study was to enable the patient to acquire cognitive strategies that alleviate the mental load of the central executive and to transfer them to daily life. We present the results of a cognitive rehabilitation program administered to a bipolar patient with fourteen years history which specifically designed to improve the attention and working memory. **Method:** We use two separate type of training program for working memory and attention. The specificity and efficacy of the program were assessed with multiple (cognitive, questionnaires and clinical Wechsler memory III) baseline measurements. In addition, several questionnaires were administered to assess the effect of the program on subjective cognitive ability affecting daily life, psychiatric symptoms, self-esteem and confidence. The training contained thirty one hours sessions during which the patient played various computer games. Training program composed of three sets of attention training that include selective attention, orienting of attention, and executive attention and working memory contain capacity, encoding styles, maintenance, and consolidation. Performance was driven by step by step of feedback and participants automatically advanced in ordered levels of difficulty contingent upon performance. Strategies were constructed and manipulated based on an analysis of the cognitive profile, daily life functioning, and processes involved in activities. **Results:** The results demonstrated the efficacy of the rehabilitation program on the working

memory, attention subtypes, and the generalisation of these beneficial effects to daily life. Scores of clinical of Wechsler memory improved two standard deviation from 61 to 85. Also, the patient's self-esteem and confidence did improve. **Conclusion:** In fact this case study provides preliminary evidence for the acceptability and effectiveness of training program as a cognitive intervention in patients with bipolar disorder.

**Key words:** Cognitive training: rehabilitation: Bipolar disorder, Working memory