



November 3, 2017

Improving Bipolar Disorder With Computers

By **Meredith Horne**

A Harvard study has shown for the first time that computerised brain training can result in improved cognitive skills in individuals with bipolar disorder.

In a paper published in the October 17, 2017 edition of *The Journal of Clinical Psychiatry*, the researchers suggest that brain exercises could be an effective non-pharmaceutical treatment for helping those with bipolar disorder function more effectively in everyday life.

The researchers found that the cognitive exercise regimen from BrainHQ online brain exercises and computer apps drove a large improvement in a standard measure of overall cognitive ability, as well as significant improvements in other cognitive measures.

Participants in the study also showed a large gain on the sub-domain measure of memory and visual learning, and a trend toward a medium-sized gain in the sub-domain of speed of processing.

The researchers assessed study participants again six months after the training ended, and they found that the gain in overall cognition persisted and that there was even a slight further improvement.

Lead investigator for the study, [Dr Eve Lewandowski](#), said problems with memory, executive function, and processing speed are common symptoms of bipolar disorder and have a direct and negative impact on an individual's daily functioning and overall quality of life.

"Improving these cognitive dysfunctions is crucial to helping patients with bipolar disorder improve their ability to thrive in the community," Dr Lewandowski said.

The authors believe the findings demonstrate this type of non-pharmaceutical intervention can significantly improve cognition in patients with bipolar disorder, as well as suggesting that once the brain is better able to perform cognitive tasks, it will continue to strengthen those processes even after patients stop using the treatment.

While medications are available that help with the mood symptoms of bipolar, the authors identified that there are no current medications that help improve cognitive function. Some prior studies have been done with cognitive training in bipolar disorder, but such studies have often been small and lacked control groups.

Dr Lewandowski believes that this novel approach using computerised brain training, once fully developed, will be able to offer affordable and easily accessible web-based interventions which will be effective for a broad group of patients.

The study was conducted by independent researchers at Harvard Medical School and [McLean Hospital](#), an affiliate of Harvard Medical School.

SANE Australia believes up to one person in 50 will develop bipolar disorder at some time in their lives.