

## Web-based cognitive exercises improve memory and attention in cancer survivors

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"Cognitive rehabilitation should be a core part of cancer survivorship care, as cognitive symptoms are very common and have a profound effect on people's lives. This study points to a simple tool that may help alleviate mild cognitive problems."

A new study suggests that a widely available webbased program (InsightTM) can help cancer survivors reporting cognitive symptoms. The 15-week program markedly improved participants' self-reported (perceived) cognitive function, lowered anxiety and depression, and improved fatigue. The findings were published online today in the *Journal of Clinical Oncology*.

"To the best of our knowledge, this is the largest cognitive intervention study that has shown a benefit for patients who are reporting persistent cognitive symptoms following chemotherapy," said study author Victoria J. Bray, MD, Medical Oncologist and PhD candidate at the University of Sydney in Sydney, Australia. "However, it is equally important to address other symptoms that may be associated with cognitive impairment, such as depression."

Mild cognitive impairments, particularly memory and concentration problems, are common among cancer survivors. In fact, up to 70% report some cognitive symptoms following chemotherapy, a condition sometimes referred to as chemobrain.1 Such symptoms have also been linked to poorer quality of life and increased depression, anxiety, and fatigue among cancer survivors.

## **Key Findings**

Self-reported cognitive function was markedly improved in the cognitive training group compared to the standard care group, both at the end of the 15-week program and six months later. Program participants reported less perceived cognitive impairment, better cognitive abilities, and lower levels of anxiety, depression, fatigue, and stress. In addition, participants' quality of life was improved at six months following program completion. Objective neuropsychological function test results were not different between the two groups.

## **Next Steps**

While this is the largest cognitive intervention study in patients with cancer, longer follow-up is needed to determine if the effects of the training are long-lasting. There are still a number of other unanswered questions to be addressed in future research. For one, it is unclear which method of delivering cognitive rehabilitation is better - a self-directed program such as this one may be suitable for some survivors, while a group-based program may work better for others. It is also unknown what the ideal duration and "dose" of cognitive training should be.

"If we could identify patients who are at risk of cognitive impairment, we could intervene earlier, and possibly achieve even better results. We would also like to explore whether there is added benefit from combining cognitive training with physical exercise," said Dr. Bray.

**More information:** Evaluation of a Web-Based Cognitive Rehabilitation Program in Cancer Survivors Reporting Cognitive Symptoms After Chemotherapy, DOI: ascopubs.org/doi/abs/10.1200/JCO.2016.67.8201

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