Cognitive-behavioral therapy may help reduce memory problems in cancer survivors who have received chemotherapy

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A new analysis indicates that a type of psychotherapy delivered by videoconference may help prevent some of the long-term memory issues caused by chemotherapy. Published early online in *CANCER*, a peer-reviewed journal of the American Cancer Society, the findings point to a noninvasive way to help cancer survivors manage some of the negative effects of their treatment.

It's estimated that approximately half of cancer patients who receive chemotherapy develop long-lasting changes in memory function such as trouble remembering conversational content or steps in a task. While the memory problems tend to be mild, they diminish quality of life in areas of job performance and family and social life well beyond cancer treatment. The causes of this problem and reasons why it does not affect every survivor remain unknown, and there is currently limited research on treatments for it.

A team led by Robert Ferguson, PhD, who is currently at the University of Pittsburgh Cancer Institute but was at the Eastern Maine Medical Center and Lafayette Family Cancer Center in Bangor, Maine, while conducting this research, developed a cognitive-behavioral therapy called "Memory and Attention Adaptation Training" (MAAT), which helps cancer survivors to increase awareness of situations where memory problems can arise and to develop skills to either prevent memory failure or to compensate for memory dysfunction.

In a small randomized study, 47 Caucasian breast cancer survivors who were an average of four years post-chemotherapy were assigned to eight visits of MAAT (30 to 45 minutes each visit) or supportive talk therapy for an identical time span. The intent of the supportive therapy was to control for the simple effects of interacting with a supportive clinician, or "behavioral placebo." Both treatments were delivered over a videoconference network between health centers to minimize survivor travel. All participants completed questionnaires assessing perceived memory difficulty and anxiety about memory problems, and they were also tested over the phone with neuropsychological tests of verbal memory and processing speed, or the ability to automatically and fluently perform relatively easy cognitive tasks. Participants were evaluated again after the eight MAAT and supportive therapy videoconference visits, as well as two months after the conclusion of therapy.

Compared with participants who received supportive therapy, MAAT participants reported significantly fewer memory problems as well as improved processing speed posttreament. MAAT participants also reported much less anxiety about cognitive problems compared with supportive therapy participants 2 months after MAAT concluded, but this was not a statistically significant finding.

"This is what we believe is the first randomized study with an active control condition that demonstrates improvement in cognitive symptoms in breast cancer survivors with long-term memory complaints," said Dr. Ferguson. "MAAT participants reported reduced anxiety and high satisfaction with this cognitive-behavioral, non-drug approach. Because treatment was delivered over videoconference device, this study demonstrates MAAT can be delivered electronically and survivors can reduce or eliminate travel to a cancer center. This can improve access to survivorship care." He noted that more research is needed using a larger number of individuals with varied ethnic and cultural backgrounds and multiple clinicians delivering treatment.

More information: Randomized Trial of Videoconference-Delivered Cognitive-Behavioral Therapy for Breast Cancer Survivors with Self-Reported Cognitive Dysfunction." Robert J. Ferguson, Sandra T. Sigmon, Andrew Pritchard, Sharon LaBrie, Rachel Goetze, Christine Fink, and A. Merrill Garrett. CANCER; Published Online: May 2, 2016. DOI: 10.1002/cncr.29891

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