

Insights from the Cancer Control Field

BrainHQ in Miami, FL

Public Health Challenge

The Miami Cancer Institute sees 7,000 new cancer cases per year. Many of these cancer patients experience problems with their brain functioning as a result of cancer treatment, the cancer itself, or other medications or conditions. These problems can include memory loss and difficulty concentrating and multitasking. The Miami Cancer Institute's staff developed its Brain Fitness Lab to identify and treat cancer-related cognitive impairments. They conduct neurological, imaging, and laboratory tests on patients that complain of cognitive problems, sometimes called "chemo brain." Patients who qualify can be treated at the Brain Fitness Lab and receive traditional therapy or BrainHQ to address their cognitive deficits.

At a Glance

The Miami Cancer Institute uses BrainHQ at its organization to help patients who develop cancer-related cognitive impairment. (This impairment is determined by a neuropsychological testing battery.) Read this success story to learn how they implemented BrainHQ and how you can use BrainHQ in your setting.

The Setting

Since March 2017, the Brain Fitness Lab at the Miami Cancer Institute Cancer Patient Support Center has been providing various cognitive therapies to patients with cancer-related cognitive impairment. The Miami Cancer Institute is part of the Baptist Health South Florida health care organization, a faith-based organization headquartered in Coral

Gables, Florida. The Miami Cancer Institute is one of the largest free-standing outpatient cancer centers in the country; it sees 7,000 new cancer cases per year and has up to 1,000 patient visits per day. Baptist Health South Florida is the second largest employer in the state.

Patients at the Brain Fitness Lab have the option of getting traditional cognitive rehabilitation with speech therapy or other therapies, such as BrainHQ, to help them improve their cognition. Staff at the Brain Fitness Lab wanted to use BrainHQ in their practice because the program is evidence based. A scientific study showed that the program improved patients' brain functioning and quality of life.

The Approach

BrainHQ is primarily a self-administered, online program that patients use at home. The program includes 29 exercises. Patients can select the specific exercises they want to do or can opt to do a standard set of exercises.

25% to 75% of patients will be impacted by cancer-related cognitive dysfunction based on where they are in their treatment modalities. So it's quite prevalent, and there's a need to implement effective remediation strategies.

Medical Director, Brain Fitness Lab

Clinical settings that want to include BrainHQ in their services have access to training, technical help, and monthly coaching calls from the developer. The developer offers the program to clinical settings under a licensure agreement.

At the Brain Fitness Lab, a medical director, neuropsychologist, and psychometricians (i.e., neuropsychological technicians) evaluate cancer patients with subjective complaints of cognitive decline with a psychiatric oncology evaluation. This evaluation is conducted to rule out other potential causes of cognitive decline, such as dementia or metabolic etiologies. The evaluation includes the following:

- Montreal Cognitive Assessment
- Blood work for metabolic abnormalities
- Assessment of comorbid psychiatric conditions
- Neuroimaging (if indicated)

Patients also complete a 35-minute comprehensive computerized neurocognitive screening that measures six cognitive domains. Patients who screen positive for cognitive deficits undergo a 90-minute battery of neuropsychological testing to confirm the diagnosis of cancer-related cognitive impairment.

Patients with confirmed cancer-related cognitive impairment following this testing and who qualify for BrainHQ meet one on one with staff who coach and help guide patients through BrainHQ's online portal. A staff member helps the patient with computer setup, provides ongoing support, and helps the patient choose the order and number of sessions to complete.

As of August 2020, 38 of the 380 patients referred to the Miami Cancer Institute for the Brain Fitness Lab have used BrainHQ. The Brain Fitness Lab offers BrainHQ for 12 weeks. Patients participate at least 4 days per week in sessions that last 20–25 minutes. Patients have the option to access the program at the Brain Fitness Lab during scheduled appointments or from home. Many patients prefer the in-home option because it saves time and money. The psychometrician follows the patients' weekly performance and compliance with Brain HQ.

In addition, the psychometrician maintains weekly contact with patients through phone calls or email. These contacts are used to inform the patient of his or her performance improvement on the brain training skills, motivate the patient, and keep the patient on task. The Miami Cancer Institute plans to use BrainHQ indefinitely, as BrainHQ has become an important part of its array of services. The initial set of exercise sessions are free, and patients are able to continue using BrainHQ after the initial free sessions for a fee.

Challenges and Lessons Learned

Flexibility

Maintain flexibility in the length and structure of the program. Some patients are able to engage in more sessions than other patients. Be aware of each patient's individual circumstances, as they may affect his or her ability to fully benefit from the program.

Providing Support

The staff at the Brain Fitness Lab believe that both technical and personal support encourages patients to follow their plan. Technical support can assist patients who struggle in using the computer and computer software. Personal support, like hands-on coaching, may benefit patients who use the online exercises and feel isolated at home by providing them with social interaction.

Frequent Communication

Look for different ways to get patients to complete the online exercises. For example, they may need help downloading the app to their cellular phone if they do not have a computer or internet access at home. Patients may also struggle to participate because of their medical condition or other priorities in their busy lives. BrainHQ coaches noted, "If patients are feeling unwell or have multiple appointments or other life priorities, those issues can affect their compliance at home." Check in with patients and discuss options that may be available to help them remain compliant with program exercises.

Questions and Answers

What types of settings are a good fit for BrainHQ?

Any organization that serves individuals reporting cognitive deficits can use BrainHQ. In addition, individuals can access and subscribe to BrainHQ directly.

What is the length of time that a patient uses BrainHQ?

The Brain Fitness Lab used a 12-week version of the program for its patients, but the program duration can be customized.



Find Out More

To learn more about BrainHQ and how to use the program at your organization, view the program summary at: <https://ebccp.cancercontrol.cancer.gov/programDetails.do?programId=27852796>

Contact

The Implementer

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About EBCCP

The Evidence-Based Cancer Control Programs (EBCCP) website has a searchable database of programs, plus resources that planners and public health practitioners can use to help prevent cancer and support cancer survivors and their caregivers in community and clinical settings.

EBCCP is the recently refreshed version of Research-Tested Intervention Programs (RTIPs). The new website includes improved navigation and search capabilities, case study narratives, program summaries, and more. Visit us at ebccp.cancercontrol.cancer.gov for the latest resources today!