PROJECT INFORMATION

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Comparing Two Programs to Improve Disability, Pain, and Health among Patients Who Have Had Back Surgery

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Organization

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What was the research about?

Back pain is a common problem that makes it hard for people to work, move around, or take care of themselves and their families. Surgery is one treatment. But even after back surgery, some people still have disability, pain, and poor health.

In this study, the research team compared two programs to improve patients' health and movement after back surgery:

- **Cognitive behavioral physical therapy, or CBPT.** A physical therapist helped each patient make a list of activity, social, and emotional goals. Patients learned skills to help them meet their goals, such as replacing negative thoughts with positive thoughts.
- **Education.** A physical therapist taught patients about topics that are important after back surgery, such as appropriate exercise and movement.

The research team wanted to see how each program affected patients' pain, health, and physical function. Physical function refers to how well patients can move and do things like walk or climb stairs. In both programs, physical therapists talked with patients on the phone.

What were the results?

After one year, patients in both programs had about the same amount of improvement in disability, pain,

physical health, mental health, physical activity, and physical function.

Who was in the study?

The study included 248 people who had recent back surgery at one of two surgical centers. One center was in Nashville, the other was in Baltimore. Of these patients, 86 percent were white, 12 percent were black, 1 percent were Asian, and less than 1 percent were Native American. The average age was 62, and 51 percent were women.

What did the research team do?

The research team assigned patients by chance to one of the two programs. Six weeks after surgery, patients filled out surveys and wore a device for one week that recorded how much they moved. They also took tests for physical strength, mobility, and walking speed. About eight weeks after surgery, physical therapists called patients in both programs once a week for six weeks. Six months after surgery, patients filled out surveys and wore the device to record movement. Twelve months after surgery, patients filled out surveys, took physical function tests, and wore the device to record movement.

An advisory board helped the research team plan and carry out the study. This board included patients, doctors, physical therapists, and a psychologist.

What were the limits of the study?

Because the research team didn't compare these programs with usual care after back surgery, the team doesn't know if the changes were because of the programs or something else. The same two physical therapists called patients in both programs. It's possible that the therapists used CBPT language by accident when talking with patients in the education program. Other studies found that CBPT was most helpful for patients who were nervous about starting to move again after surgery or felt unsure about

meeting their goals. Results might have differed if this study had included more patients who felt that way.

Future studies could focus on patients who are scared to move or feel unsure about meeting their goals.

How can people use the results?

Doctors and patients can use these results when considering ways to improve how patients feel and how well they can move after back surgery.

To learn more about this project, visit www.pcori.org/Archer225.