

Comparing Cardiac Rehabilitation at Home or in a Clinic after Hospitalization

Principal investigator

Mary Whooley, MD

Organization

University of California San Francisco

What was the research about?

Doctors often recommend cardiac rehabilitation, or CR, for patients who have been in the hospital for heart problems, such as a heart attack. CR programs include exercise, changes in diet, and avoiding behaviors like smoking. CR can help prevent future heart problems.

CR programs usually take place in clinics. But patients may find it hard to go to the clinic for CR two or three times a week. Having CR at home may be easier.

In this study, the research team compared two types of CR programs:

- **Home CR.** Patients exercised at home and checked their blood pressure and heart rate. A clinic staff member called once a week to check patients' health, provide coaching, and give information about diet and exercise.
- **Facility CR.** Patients visited a clinic two or three times a week to exercise under a staff member's supervision. They also received information on diet and exercise.

The research team looked at how the two CR programs affected the distance patients could walk in a short time. Walking tests are a way to measure heart health.

What were the results?

After three months, compared with patients in facility CR, patients in home CR could walk further in six minutes. They also had more improvement than

patients in facility CR in quality of life, physical activity, and symptoms of anxiety.

But patients in facility CR felt more confident in their ability to exercise and had more improvement in their memory and reasoning than patients in home CR.

After six months, each group had similar improvement in walking distance.

Who was in the study?

The study included 235 patients who received care for heart problems at one of three Veterans Affairs, or VA, medical centers. The average age was 65, and 99 percent were men. Of those in home-based CR, 78 percent were white, 11 percent were black, and 9 percent were Hispanic. Of those in facility-based CR, 77 percent were white, 19 percent were black, and 2 percent were Hispanic.

What did the research team do?

Patients receiving care at the San Francisco VA received home CR. Patients receiving care at the Pittsburgh and Ann Arbor VAs received facility CR. After three and six months, medical center staff tested patients to see how far they could walk in six minutes. Patients also filled out surveys about their health at three months.

Patients, patient advocates, healthcare providers, policy makers, and community members gave input on the study.

What were the limits of the study?

Doctors at the three VAs used different ways to refer patients for CR. This difference could have affected whether patients joined the study. At six months, 72 percent of patients in home CR and 39 percent of patients in facility CR left the study. Results may have differed if more patients had stayed in the study.

Future research could study patients' health over the long term after CR.

How can people use the results?

Medical centers can use these results when considering what kind of CR to offer patients with heart problems.

To learn more about this project, visit www.pcori.org/Whooley230.