

Using Surveys to Assess Patient-Centered Factors that May Affect Responses to Chronic Pain Treatment

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What was the research about?

Patients' beliefs and expectations may affect how they respond to treatment. But these feelings are hard to measure.

In this study, the research team created a set of surveys called Healing Encounters and Attitudes Lists, or HEAL. HEAL helps researchers understand patients' beliefs and expectations about treatment. HEAL measures patients'

- Connections with their doctors and nurses
- Feelings about their doctor's office and staff
- Expectations about treatment
- Outlook on life
- Strength of spiritual beliefs
- Comfort with complementary or alternative medicine, or CAM

The team also used the Patient-Reported Outcomes Measurement Information System, or PROMIS®, to measure patients' pain, health, and function. PROMIS is a set of surveys researchers and doctors use for many diseases and treatments.

The team wanted to learn if HEAL could predict how patients respond to treatment for chronic pain. Chronic pain is pain that lasts for months or years. The

team used HEAL and PROMIS to look at why some groups of patients respond differently to treatment for chronic pain. Patients got either conventional treatment, such as physical therapy or medicine, or CAM, such as acupuncture, chiropractic treatment, or massage.

What were the results?

Using HEAL to predict how patients respond to treatment

- The more positive a patient's HEAL scores, the greater symptom improvement they reported after two and four months.
- Some HEAL scores seemed to predict pain intensity after two and four months. In addition, some HEAL scores seemed to predict how much pain affected patients' life activities. But then the research team looked at how intense patients' pain was and how much pain affected patients' activities at the start of the study. Once the team accounted for these factors, the ability of HEAL scores to predict pain intensity and its effect on activities was much less clear.

Understanding why patients respond differently to treatment

- Patients with higher expectations for treatment had less pain and better health and function after two and four months compared with patients with lower expectations for treatment.
- Compared with patients who chose CAM, those who chose conventional treatment had more pain and worse health and function after two and four months. But compared with those who chose CAM, patients who chose conventional treatment also had more pain and worse health at the start of the study.

Who was in the study?

The study included 209 patients with chronic pain. Patients' pain must have lasted for at least three months. Of patients, 76 percent were white, 23 percent were non-white or multiracial, and 7 percent were Hispanic. The average patient age was 48, and 75 percent were women. Of the 209 patients, 109 received CAM and 100 received conventional treatment.

What did the research team do?

Patients filled out HEAL and PROMIS surveys within a month of starting treatment and again two and four months later. The research team looked to see if HEAL

scores predicted patients' symptom improvement and pain as reported on PROMIS surveys. In addition, the team looked at how patients' expectations for treatment, measured by HEAL, and the type of treatment they chose affected their pain, health, and function after treatment, as measured by PROMIS.

During the study, the team met with a group of patients, patient advocates, and clinicians. This group gave input on research questions, study design, and ways to share results.

What were the limits of the study?

The study included only people with chronic pain. Results may not apply to people with other health problems. The research team didn't look at all possible reasons why patients responded differently to treatment.

Future research could see if using HEAL and PROMIS in doctors' offices and hospitals helps patients talk about treatments with their doctors.

How can people use the results?

HEAL and PROMIS may help researchers understand what factors affect patients' responses to chronic pain treatment.

To learn more about this project, visit pcori.org/Greco095.