



NIH PRAGMATIC TRIALS COLLABORATORY

Rethinking Clinical Trials®

Advancing Rural Back Pain Outcomes Through Rehabilitation Telehealth (ARBOR-Telehealth)

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ClinicalTrials.gov Identifier

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NIH Institute Providing Funding or Oversight

[National Institute of Arthritis and Musculoskeletal and Skin Diseases \(NIAMS\)](#)

ABSTRACT

For patients with chronic low back pain, physical therapy is a cost-effective method for improving pain and disability. Physical therapy also reduces the need for advanced imaging, injections, surgery, and opioid medications. Yet only 7% to 13% of patients with low back pain, including those with chronic low back pain, receive physical therapy. Patients report significant barriers to accessing physical therapy, including transportation, provider availability, and missed work time. Access is especially limited in rural communities, where there are approximately 40% fewer physical therapists per capita than in metropolitan areas. Patients in rural communities typically must travel longer distances to receive physical therapy, which can impose higher transportation costs and require more time away from work. Access barriers in rural communities likely contribute to the greater rates of low back pain–related disability and opioid consumption in these communities compared with metropolitan areas. Policy changes during the COVID-19 public health emergency allowed physical therapists to begin providing care remotely, referred to as “telerehabilitation.” Telerehabilitation has the potential to improve access to physical therapy in rural communities and may serve as a means of improving outcomes for patients with chronic low back pain. ARBOR-Telehealth is a randomized clinical trial of the effectiveness of a risk-informed telerehabilitation strategy to reduce opioid use and low back pain–related disability and improve physical function and health-related quality of life among patients with chronic low back pain. The trial will enroll patients with chronic low back pain who present to primary care clinics that serve rural communities. Eligible patients will be randomly assigned to either an educational control group or to 1 of 3 risk-informed telerehabilitation interventions: a low-risk group receiving remote therapeutic monitoring; a medium-risk group receiving physical therapy telehealth visits; or a high-risk group receiving psychologically informed physical therapy telehealth visits. The primary effectiveness outcomes are the differences in change in low back pain–related disability and opioid use after 8 weeks. The study team will explore implementation outcomes using a mixed-methods approach consisting of electronic surveys and semistructured interviews with patients, physical therapists, practice managers, and outpatient services administrators focused on the perceived quality and impact of the intervention on barriers to care.

WHAT WE'VE LEARNED SO FAR

Challenge	Solution
A relatively small number of physical therapists will provide care to an anticipated large number of study participants, which introduces the possibility of correlations in study outcomes.	The study team worked closely with the Biostatistics and Study Design Core to reconsider the statistical analysis plan in light of the study being an individually randomized group treatment trial rather than an individually randomized trial.

“If I had any advice for investigators considering doing a pragmatic clinical trial, it would be, ‘Just do it.’ Have crucial conversations with people in your research team, people in the healthcare systems, patients, and providers. By really getting into the healthcare system, you understand the opportunities from the front door to the boardroom.” — Dr. Richard Skolasky

SELECTED PUBLICATIONS & PRESENTATIONS

- Presentation: [NIH Pragmatic Trials Collaboratory Onboarding Meeting \(2023\)](#)
- Video Interview: [NIH HEAL Initiative Turns Attention to Pragmatic Trials in Rural Communities \(2024\)](#)

[See the complete set of ARBOR-Telehealth resources.](#)