

The Pain Brain

What changes when pain becomes chronic?

Brain Response

Structural and functional changes take place in key brain regions that are responsible for **processing, regulating, and making sense of pain.**¹

These changes make it **easier for the brain to continue the cycle of pain.**

Once these changes take place, the primary cause of ongoing pain is no longer an injury in the body, but a **learned process in the brain.**

Pain Beliefs

Chronic pain has a strong correlation with the **development or worsening of anxiety**, leading to patterns of fear, activity avoidance, pain catastrophizing, and hypervigilance.

Fear of undiscovered structural damage is common: 43.9% of people with chronic pain agree with the statement "The pain I feel is a sign that damage is being done."²

Pain Experience

As pain becomes chronic, it is **common for the pain experience to intensify**, with patients reporting increased pain frequency, intensity, duration, and disability.

¹ Yang, Seoyon, and Min Cheol Chang. "Chronic Pain: Structural and Functional Changes in Brain Structures and Associated Negative Affective States." *International Journal of Molecular Sciences*, U.S. National Library of Medicine, 26 June 2019, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6650904/>. ² Curable Survey, n=735

Brain-Centric Healing

What is it, and how is it different?

Brain-Centric Healing aims to:

Reduce or eliminate pain

Shift one's beliefs about the cause of pain and the threat level of pain

Teach the brain to reinterpret signals as safe instead of dangerous and painful

Provide techniques for navigating daily stressors without triggering physical pain

Examples: The Curable App, Pain Reprocessing Therapy

Traditional Mind-Based Approaches aim to:

Accept and manage pain

Reduce the impact pain has on one's daily life

Improve physical and emotional well-being despite the pain

Provide techniques for better coping with pain and reducing general stress levels

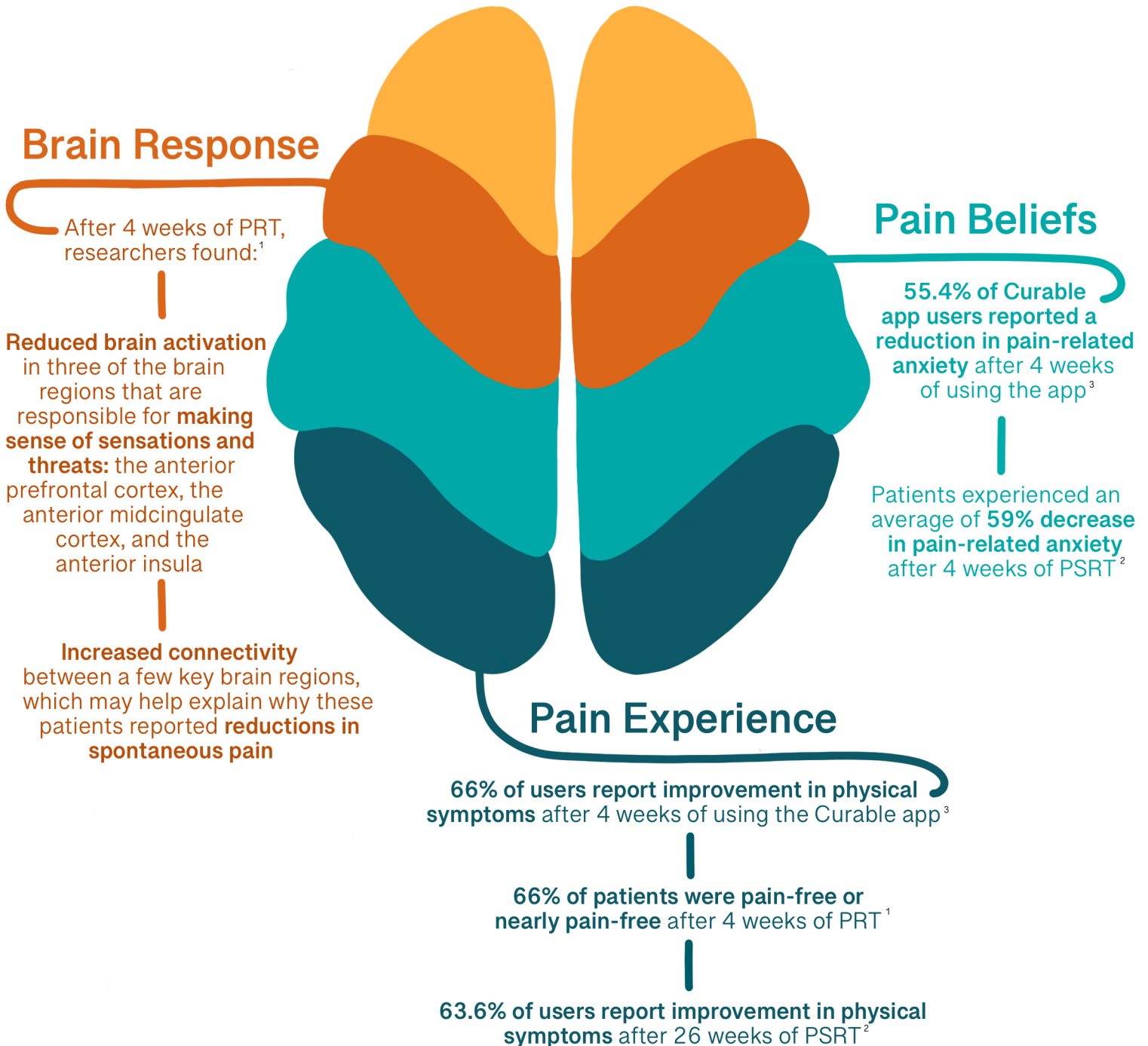
Examples: Acceptance and Commitment Therapy, Mindfulness-Based Stress Reduction

VS

The Healing Brain

What changes take place when chronic pain is treated with a brain-centric approach?

All results shown were obtained from following brain-centric healing protocols or programs, including:
The Curable App | Pain Reprocessing Therapy (PRT)* | Psychophysiological Symptom Relief Therapy (PSRT)*



*Results from PRT and PSRT specifically apply to non-specific chronic lower back pain. ¹Ashar, Yoni et al. "Effect of Pain Reprocessing Therapy vs Placebo and Usual Care for Patients with Chronic Back Pain." JAMA Network, 29 Sept. 2021, <https://jamanetwork.com/journals/jamapsychiatry/fullarticle/2784694>.

²Donnino, Michael, et al. "Psychophysiological Symptom Relief Therapy for Chronic Back Pain: A Pilot Randomized Controlled Trial." Pain Reports, U.S. National Library of Medicine, 23 Sept. 2021, <https://pubmed.ncbi.nlm.nih.gov/34589642/> ³Curable Global Patient Impression of Change Survey, n = 10,173