

# Effectiveness of cognitive functional therapy (CFT) for chronic spinal pain: a systematic review with meta-analysis

Open Access

Abstract

Published 09/05/2024

Copyright

© Copyright 2024

Marelli et al. This is an open access abstract distributed under the terms of the Creative Commons Attribution License CC-BY 4.0., which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Distributed under

Creative Commons CC-BY 4.0

Michele Marelli <sup>1</sup>, Matteo Cioeta <sup>2</sup>, Leonardo Pellicciari <sup>3</sup>, Fabio Rossi <sup>4</sup>, Stefania Guida <sup>5</sup>, Silvia Bargerì <sup>6</sup>

<sup>1</sup>. Department of Medicine and Health Science "Vincenzo Tiberio", University of Molise, Campobasso, ITA <sup>2</sup>. Department of Neuroscience, IRCCS San Raffaele, Roma, ITA <sup>3</sup>. Pain Center, IRCCS Istituto delle Scienze Neurologiche, Bologna, ITA <sup>4</sup>. Department of Medicine and Health Science "Vincenzo Tiberio", University of Molise, Campobasso, ITA <sup>5</sup>. Unit of Clinical Epidemiology, IRCCS Istituto Ortopedico Galeazzi, Milano, ITA <sup>6</sup>. Unit of Clinical Epidemiology, IRCCS Istituto Ortopedico Galeazzi, Milano, ITA

**Corresponding author:** Michele Marelli, michele.marelli@unimol.it

**Categories:** Pain Management

**Keywords:** chronic spinal pain, cognitive functional therapy (cft)

**How to cite this abstract**

Marelli M, Cioeta M, Pellicciari L, et al. (September 05, 2024) Effectiveness of cognitive functional therapy (CFT) for chronic spinal pain: a systematic review with meta-analysis . Cureus 16(9): a1336

## Abstract

**Introduction** Spinal pain, affecting over 600 million people globally, is a leading cause of disability. Chronic spinal pain (cSP) is influenced by individual characteristics and psychological factors. Cognitive Functional Therapy (CFT), a multidimensional intervention, is gaining recognition for treating cSP (1), aiming to target cognitive, psychological, and social factors. However, systematic reviews (SRs) on CFT effectiveness in low back pain (LBP) patients have yielded conflicting results (2). Recently, new randomized controlled trials (RCTs) have been published on this topic (3). Therefore, we aim to conduct an update SRs with meta-analysis to investigate CFT effectiveness on multiple clinical outcomes in cSP patients.

**Methods** This SR followed Cochrane Handbook guidance and PRISMA statement, and its protocol was registered on PROSPERO (CRD42023482667). We searched five databases and grey literature up to October 2023 for RCTs studying CFT compared to other conservative interventions or standard care in patients with cSP. Primary outcomes were disability and pain; secondary outcomes were psychological factors, quality of life, patient satisfaction, and adverse events. Two independent authors performed the study selection, data extraction and risk of bias assessment with the Cochrane Risk of Bias 2 tool. Meta-analyses were performed using a random effect model. The certainty of evidence (CoE) was studied using the GRADE approach. The clinical relevance was assessed with the Smallest Worthwhile Effect, defined as a 20%-30% additional improvement compared to the control.

**Results** Nine RCTs were included, involving 1,228 patients with chronic LBP and 72 with chronic neck pain (NP). No studies assessed CFT in other spinal pain. The risk of bias was low in three studies, some concerns in five, and high in one. Compared to other conservative interventions, CFT may reduce disability with probable clinical relevance (MD: -9.41; 95%CI: -12.56, -6.27 for LBP – low CoE; MD: -11.00; 95%CI: -13.21, -8.79 for NP – very low CoE) and pain (MD: -1.59; 95%CI: -2.33, -0.85 for LBP – very low CoE; MD: -1.99; 95%CI: -2.42, -1.56 for NP – very low ) at short-term follow-up.

**Conclusion** CFT appears more effective for managing disability and pain in cSP patients than other treatments. However, CFT may require a paradigm shift in physiotherapy practice, necessitating comprehensive training in communication skills and cognitive-behavioural strategies. This highlights the need for a genuine biopsychosocial approach to manage cSP. For broader applicability, researchers should expand studies to other chronic musculoskeletal conditions.

## References

1. O'Sullivan et al. Cognitive Functional Therapy: An Integrated Behavioral Approach for the Targeted Management of Disabling Low Back Pain. *Phys Ther.* 2018;98(5):408-423. doi: 10.1093/ptj/pzy022.
2. Devonshire et al. Effectiveness of Cognitive Functional Therapy for Reducing Pain and Disability in Chronic Low Back Pain: A Systematic Review and Meta-analysis. *J Orthop Sports Phys Ther.* 2023;53(5):244–285.
3. Kent et al. Cognitive functional therapy with or without movement sensor biofeedback versus usual care for chronic, disabling low back pain (RESTORE): a randomised, controlled, three-arm, parallel group, phase 3, clinical trial. *Lancet.* 2023;401(10391):1866-1877.

