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Internet-Delivered Cognitive Behavioural Therapy for Chronic Pain: Clinical Effectiveness

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Research Question

What is the clinical effectiveness of internet-delivered cognitive behavioural therapy for patients with chronic pain?

Key Findings

Nine systematic reviews (six with meta-analyses), 28 randomized controlled trials, and five non-randomized studies were identified regarding the clinical effectiveness of internet-delivered cognitive behavioural therapy for patients with chronic pain.

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, PsycINFO, Cochrane CENTRAL the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were chronic pain and internet-based cognitive behavioural therapy. Search filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, or network meta-analyses, and any types of clinical trials or observational studies. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 01, 2015 and December 02, 2020. Internet links were provided, where available.

Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed.

Table 1: Selection Criteria

Population	Patients (any age) with chronic pain - Participants with concurrent pharmacotherapy use will be included - Exclude: Participants using iCBT primarily for indications other than chronic pain (e.g., primary diagnosis of major depressive disorder, anxiety disorder, post-traumatic stress disorder)
Intervention	Guided and unguided iCBT
Comparator	Alternative iCBT interventions; Telephone-delivered CBT; Face-to-face psychological therapy (CBT or non-CBT); Internet-delivered non-CBT interventions; Pharmacotherapy (e.g., NSAIDs, acetaminophen, opioids); Non-pharmacological interventions (e.g., exercise, physical therapy, manual therapies, acupuncture); Usual care; Wait-list; No treatment

Outcomes	Clinical effectiveness (e.g., level of pain control, duration of pain control, changes in use of pharmacotherapy, health-related quality of life, time-to-event data [e.g., to pain improvement, dropout], satisfaction with care, patient adherence, safety [e.g., adverse events])
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, and non-randomized studies

CBT = cognitive behavioural therapy; iCBT = internet-delivered cognitive behavioural therapy; NSAID = nonsteroidal anti-inflammatory drug.

Results

Nine systematic reviews¹⁻⁹ (six with meta-analyses^{1,3-6,8}), 28 randomized controlled trials,¹⁰⁻³⁷ and five non-randomized studies³⁸⁻⁴² were identified regarding the clinical effectiveness of internet-delivered cognitive behavioural therapy for patients with chronic pain. No relevant health technology assessments were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

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[PubMed: PM29984490](#)
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Randomized Controlled Trials

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[PubMed: PM32658147](#)
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[PubMed: PM32459348](#)
15. Schlicker S, Baumeister H, Buntrock C, et al. A Web- and Mobile-Based Intervention for Comorbid, Recurrent Depression in Patients With Chronic Back Pain on Sick Leave (Get.Back): Pilot Randomized Controlled Trial on Feasibility, User Satisfaction, and Effectiveness. *JMIR Ment Health*. 2020 Apr 15;7(4):e16398.
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Non-Randomized Studies

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Appendix — Further Information

Previous CADTH Reports

43. Internet-Delivered Cognitive Behavioural Therapy for Post-Traumatic Stress Disorder: A Health Technology Assessment. (*CADTH Optimal Use Report vol. 9, no. 3b*). Ottawa (ON): CADTH; 2019: <https://cadth.ca/sites/default/files/ou-tr/op0537-icbt-for-ptsd.pdf>. Accessed 2020 Dec 10.
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Systematic Reviews

Unclear Intervention

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Unclear Population

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Randomized Controlled Trials

Unclear Intervention

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Alternative Outcomes

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Non-Randomized Studies

Unclear Intervention

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Unclear Comparator

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