Evaluation of implementation strategies for cognitive behavioral therapy (CBT), acceptance and commitment therapy (ACT), and mindfulness-based stress reduction (MBSR): A systematic review

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Research Objective: Improving access to high-quality mental health care is a priority for community members, health systems, and national agencies. To increase availability and use of evidence-based psychotherapies (EBPs), it is critical to understand the impact of strategies to support implementation. Cognitive behavioral therapy (CBT), acceptance and commitment therapy (ACT), and mindfulness-based stress reduction (MBSR) are EBPs with demonstrated effectiveness for several conditions. We conducted a systematic review to evaluate the effects of implementation strategies for CBT, ACT, and MBSR.

Study Design: We searched MEDLINE, Embase, PsycINFO, and CINAHL from inception through March 2021 for English-language articles on implementation of EBPs used to treat chronic pain or mental health conditions. Eligible studies evaluated implementation strategies, or barriers and facilitators to implementation, for EBPs in large integrated healthcare settings in the US, UK, Canada, Australia, or Ireland. Two individuals reviewed eligibility and rated quality using modified criteria from Newcastle-Ottawa (for quantitative results) or Critical Appraisal Skills Programme (for qualitative results). Quantitative results were abstracted by one reviewer and overread by a second reviewer. Qualitative results were independently coded by at least 2 reviewers, with final codes reached by consensus. We applied the RE-AIM framework to guide our synthesis of implementation outcomes.

Population Studied: Mental health providers engaged in implementation programs of CBT or ACT (*n*=5-391), and patients treated (*n*=113-745) by providers participating in these programs.

Principal Findings: Ten studies (reported by k=12 eligible articles) evaluated implementation strategies for CBT (k=11) and ACT (k=1); none addressed MBSR. Eleven were conducted in the US, with 10 conducted in Veterans Health Administration (VHA) settings. Conditions addressed included depression and/or anxiety (k=8), insomnia (k=2), post-traumatic stress disorder (k=1), and chronic pain (k=1). Implementation strategies being evaluated included training/education, facilitation, audit/feedback, and access to new funding. Implementation of CBT and ACT demonstrated moderate to large effects on symptom reduction and improvements in quality of life for patients. Implementation programs improved provider self-efficacy and perceptions of EBPs, as well as adoption by providers (use of EBPs by trained individuals); however, it is unclear if they increased reach (uptake by target patient populations). Within adoption, there was limited evidence addressing the representativeness of settings and providers using EBPs. Few studies directly addressed additional benefits of external facilitation on top of training/education and audit/feedback. Following implementation programs, maintenance of EBP adoption by providers was modest; barriers to ongoing use included competing professional time demands and perceived patient barriers.

Conclusion: Multi-faceted implementation programs for CBT and ACT led to increased provider adoption but had unclear impacts on uptake by patients and maintenance of adoption by providers.

Implications for Policy and Practice: Large-scale implementation programs increased adoption of EBPs by mental health providers but involved use of multiple strategies requiring substantial resources. Evidence evaluating reach, or strategies that directly target patient barriers to access, remains limited. Future implementation efforts may evaluate alternative delivery formats and modalities designed to be more convenient for both providers and patients, including asynchronous communications and virtual visits. More work is needed to understand effectiveness and other implementation outcomes for EBPs delivered using these different formats and modalities.

Full evidence synthesis report: https://www.hsrd.research.va.gov/publications/esp/Psychotherapies-Pain.cfm
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Table: Characteristics of studies evaluating implementation of Cognitive Behavioral Therapy (CBT) or Acceptance and Commitment Therapy (ACT).

Author, Year	Quality	Methods	Setting	EBP	Participants
Implementation Strategies: Training/Education, Facilitation & Audit/Feedback					
Cully, 2010 Kauth, 2010	Moderate High	Quantitative Mixed-methods	US, VHA	CBT	28 providers in 20 clinics were trained in CBT for depression, 12 received external facilitation (10 clinics) and 11 did not (10 clinics)
Karlin, 2012	Moderate	Quantitative	US, VHA	CBT	221 providers in national training program for CBT for depression; 356 patients who received CBT from trainees during consultation phase
Karlin, 2013 Manber, 2013	Moderate Moderate	Quantitative	US, VHA	CBT	207 providers trained in national program for CBT for insomnia (193 completed program);182 patients who received CBT from trainees
Mignogna, 2014	Moderate	Quantitative	US, VHA	CBT	9 mental health providers (embedded in primary care at 2 sites) who received online training in CBT for anxiety and depression
Stewart, 2015	Moderate	Quantitative	US, VHA	CBT	71 providers trained in national program for CBT for chronic pain (60 completed training); 148 patients received CBT from trainees
Walser, 2013	High	Quantitative	US, VHA	ACT	391 providers trained in national program for ACT (334 completed training); 745 patients who received ACT from trainees
Implementation Strategies: Training/Education & Audit/feedback					
Ruzek, 2014	Moderate	Quantitative	US, VHA	CBT	139 mental health providers randomized to CBT training as usual (n=51), internet training modules only (n=46), and internet training with telephone consultation (n=42)
Hepner, 2011	Moderate	Quantitative	US, community clinics	CBT	5 addiction counsellors in Los Angeles County trained in group CBT for depression; 113 patients who attended ≥1 CBT session and responded to survey
Implementation Strategies: Training/Education					
Curran, 2015	High	Qualitative	US, VHA	CBT	8 counselors (7 substance use disorder clinics) who completed online training in CBT for depression
Implementation Strategy: Access to New Funding					
Clark, 2009	Low	Quantitative	UK	CBT	Patients at primary care clinic, most referred for in-person CBT for depression or anxiety

EBP: Evidence-based Psychotherapy; UK: United Kingdom; US: United States; VHA: Veterans Health Administration.