Cognitive–behavioural therapy for a variety of conditions: an overview of systematic reviews and panoramic meta-analysis

Beth Fordham,1* Thavapriya Sugavanam,1 Katherine Edwards,1 Karla Hemming,2 Jeremy Howick,3 Bethan Copsey,1 Hopin Lee,1 Milla Kaidesoja,4 Shona Kirtley,1 Sally Hopewell,1 Roshan das Nair,5,6 Robert Howard,7 Paul Stallard,8 Julia Hamer-Hunt,9 Zafra Cooper10 and Sarah E Lamb1,11 on behalf of the Cognitive Behavioural Therapy – Overview Expert Consultation Group

1Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, University of Oxford, Oxford, UK
2Institute of Applied Health Research, University of Birmingham, Birmingham, UK
3Faculty of Philosophy, University of Oxford, Oxford, UK
4Department of Psychology and Logopedics, University of Helsinki, Helsinki, Finland
5Department of Psychiatry and Applied Psychology, University of Nottingham, Nottingham, UK
6Institute of Mental Health, Nottinghamshire Healthcare NHS Foundation Trust, Nottingham, UK
7Division of Psychiatry, University College London, London, UK
8Department for Health, University of Bath, Bath, UK
9Public and patient representative, Oxford, UK
10Department of Psychiatry, Yale School of Medicine, New Haven, CT, USA
11College of Medicine and Health, University of Exeter, Exeter, UK

*Corresponding author beth.fordham@ndorms.ox.ac.uk

Declared competing interests of authors: Zafra Cooper reports occasional fees for lectures and workshops on cognitive–behaviour therapy (CBT) for eating disorders, and payment to provide various clinical and research groups with supervision in CBT for eating disorders. Roshan das Nair reports being chairperson of the National Institute for Health Research (NIHR) Research for Patient Benefit East Midlands Regional Advisory Committee (2019 to present); he was also a NIHR Health Services and Delivery Research funding panel member (2018–20). Sally Hopewell reports membership of the Health Technology Assessment (HTA) Clinical Evaluation and Trials Committee from 2018 to the present. Robert Howard reports grants from NIHR HTA and Efficacy and Mechanism Evaluation programmes during the conduct of the study. He was a member of the HTA Commissioning Committee (2013–18) and the HTA Commissioning Sub-board (2016–17). Milla Kaidesoja reports grants from the Helsinki Institute of Life Science during the conduct of the study. Sarah E Lamb was on the HTA Additional Capacity Funding Board (2012–15), the HTA End of Life Care and Add-on Studies Board (September 2015), the HTA Prioritisation Group Board (2010–15) and the HTA Trauma Board (2007–8).
Plain English summary

CBT for a variety of conditions
Health Technology Assessment 2021; Vol. 25: No. 9
DOI: 10.3310/hta25090

NIHR Journals Library www.journalslibrary.nihr.ac.uk
Plain English summary

This report is a summary of research examining if a psychological therapy called cognitive–behavioural therapy can improve the quality of life of people living with physical and/or mental conditions. Cognitive–behavioural therapy uses a set of techniques that help individuals to identify and change problematic thoughts or behaviour patterns that might contribute to and maintain their physical or mental symptoms. It can be delivered face to face or through mediums such as the internet. We aimed to understand if cognitive–behavioural therapy helps patients with specific conditions only, or if it can help patients with any condition.

We searched relevant databases to find articles that combine the results from multiple trials testing cognitive–behavioural therapy. These are known as systematic reviews. We graded these reviews as providing good- or poor-quality evidence. We identified the conditions for which we had good-quality evidence on whether or not cognitive–behavioural therapy was helpful.

From each review, we took numerical data that told us if cognitive–behavioural therapy improved quality of life for that specific condition. Next, we combined all the numerical data together, across all the conditions, to see if there was a consistent benefit of cognitive–behavioural therapy.

The statistical analyses found that cognitive–behavioural therapy consistently improved quality of life across all the conditions where it has been tested. We have evidence that it can help children, adolescents and adults, of either sex, who are living in Europe, North America and Australasia. We are unsure if it will help older adults or people living in Africa, Asia or South America, nor do we know if cognitive–behavioural therapy is equally effective across different ethnic groups.

It is recommended that future research should prioritise understanding how cognitive–behavioural therapy works, why some people do not want to use cognitive–behavioural therapy and why some patients do not benefit from it.
Criteria for inclusion in the Health Technology Assessment journal

Reports are published in Health Technology Assessment (HTA) if (1) they have resulted from work for the HTA programme, and (2) they are of a sufficiently high scientific quality as assessed by the reviewers and editors.

Reviews in Health Technology Assessment are termed ‘systematic’ when the account of the search appraisal and synthesis methods (to minimise biases and random errors) would, in theory, permit the replication of the review by others.

HTA programme

Health Technology Assessment (HTA) research is undertaken where some evidence already exists to show that a technology can be effective and this needs to be compared to the current standard intervention to see which works best. Research can evaluate any intervention used in the treatment, prevention or diagnosis of disease, provided the study outcomes lead to findings that have the potential to be of direct benefit to NHS patients. Technologies in this context mean any method used to promote health; prevent and treat disease; and improve rehabilitation or long-term care. They are not confined to new drugs and include any intervention used in the treatment, prevention or diagnosis of disease.

The journal is indexed in NHS Evidence via its abstracts included in MEDLINE and its Technology Assessment Reports inform National Institute for Health and Care Excellence (NICE) guidance. HTA research is also an important source of evidence for National Screening Committee (NSC) policy decisions.

This report

The research reported in this issue of the journal was funded by the HTA programme as project number 15/174/24. The contractual start date was in January 2018. The draft report began editorial review in April 2020 and was accepted for publication in July 2020. The authors have been wholly responsible for all data collection, analysis and interpretation, and for writing up their work. The HTA editors and publisher have tried to ensure the accuracy of the authors’ report and would like to thank the reviewers for their constructive comments on the draft document. However, they do not accept liability for damages or losses arising from material published in this report.

This report presents independent research funded by the National Institute for Health Research (NIHR). The views and opinions expressed by authors in this publication are those of the authors and do not necessarily reflect those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health and Social Care. If there are verbatim quotations included in this publication the views and opinions expressed by the interviewees are those of the interviewees and do not necessarily reflect those of the authors, those of the NHS, the NIHR, NETSCC, the HTA programme or the Department of Health and Social Care.

© Queen's Printer and Controller of HMSO 2021. This work was produced by Fordham et al. under the terms of a commissioning contract issued by the Secretary of State for Health and Social Care. This issue may be freely reproduced for the purposes of private research and study and extracts (or indeed, the full report) may be included in professional journals provided that suitable acknowledgement is made and the reproduction is not associated with any form of advertising. Applications for commercial reproduction should be addressed to: NIHR Journals Library, National Institute for Health Research, Evaluation, Trials and Studies Coordinating Centre, Alpha House, University of Southampton Science Park, Southampton SO16 7NS, UK.

Published by the NIHR Journals Library (www.journalslibrary.nihr.ac.uk), produced by Prepress Projects Ltd, Perth, Scotland (www.prepress-projects.co.uk).
NIHR Journals Library Editor-in-Chief

**Professor Ken Stein**  Professor of Public Health, University of Exeter Medical School, UK

NIHR Journals Library Editors

**Professor John Powell**  Chair of HTA and EME Editorial Board and Editor-in-Chief of HTA and EME journals. Consultant Clinical Adviser, National Institute for Health and Care Excellence (NICE), UK, and Professor of Digital Health Care, Nuffield Department of Primary Care Health Sciences, University of Oxford, UK

**Professor Andrée Le May**  Chair of NIHR Journals Library Editorial Group (HS&DR, PGfAR, PHR journals) and Editor-in-Chief of HS&DR, PGfAR, PHR journals

**Professor Matthias Beck**  Professor of Management, Cork University Business School, Department of Management and Marketing, University College Cork, Ireland

**Dr Tessa Crilly**  Director, Crystal Blue Consulting Ltd, UK

**Dr Eugenia Cronin**  Senior Scientific Advisor, Wessex Institute, UK

**Dr Peter Davidson**  Consultant Advisor, Wessex Institute, University of Southampton, UK

**Ms Tara Lamont**  Senior Scientific Adviser (Evidence Use), Wessex Institute, University of Southampton, UK

**Dr Catriona McDaid**  Senior Research Fellow, York Trials Unit, Department of Health Sciences, University of York, UK

**Professor William McGuire**  Professor of Child Health, Hull York Medical School, University of York, UK

**Professor Geoffrey Meads**  Emeritus Professor of Wellbeing Research, University of Winchester, UK

**Professor James Raftery**  Professor of Health Technology Assessment, Wessex Institute, Faculty of Medicine, University of Southampton, UK

**Dr Rob Riemsma**  Reviews Manager, Kleijnen Systematic Reviews Ltd, UK

**Professor Helen Roberts**  Professor of Child Health Research, UCL Great Ormond Street Institute of Child Health, UK

**Professor Jonathan Ross**  Professor of Sexual Health and HIV, University Hospital Birmingham, UK

**Professor Helen Snooks**  Professor of Health Services Research, Institute of Life Science, College of Medicine, Swansea University, UK

**Professor Ken Stein**  Professor of Public Health, University of Exeter Medical School, UK

**Professor Jim Thornton**  Professor of Obstetrics and Gynaecology, Faculty of Medicine and Health Sciences, University of Nottingham, UK

Please visit the website for a list of editors: www.journalslibrary.nihr.ac.uk/about/editors

**Editorial contact:** journals.library@nihr.ac.uk