Complete Summary

GUIDELINE TITLE

Computerised cognitive behaviour therapy for depression and anxiety.

BIBLIOGRAPHIC SOURCE(S)

National Institute for Health and Clinical Excellence (NICE). Computerised cognitive behaviour therapy for depression and anxiety. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 38 p. (Technology appraisal; no. 97).

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

- Depression
- Generalised anxiety disorder (GAD)
- Panic disorder
- Phobias (agoraphobia without panic disorder, agoraphobia with panic disorder, social phobias and specific [isolated] phobias)
- Obsessive compulsive disorder (OCD)

GUIDELINE CATEGORY

Management
Technology Assessment
Treatment

CLINICAL SPECIALTY

Family Practice
Internal Medicine
Psychiatry
Psychology

INTENDED USERS

Advanced Practice Nurses
Nurses
Patients
Physician Assistants
Physicians
Psychologists/Non-physician Behavioral Health Clinicians

GUIDELINE OBJECTIVE(S)

To update the National Institute for Health and Clinical Excellence (NICE) Guidance on the clinical and cost-effectiveness of computerised cognitive behaviour therapy (CCBT) delivered alone or as part of a package of care as compared with current standard treatments for depression and anxiety (including phobias). In addition, obsessive compulsive disorder was included in the review.

TARGET POPULATION

Adults with depression, anxiety (including phobias) or obsessive compulsive disorder

INTERVENTIONS AND PRACTICES CONSIDERED

Computerized cognitive behavioural therapy (CCBT)

MAJOR OUTCOMES CONSIDERED

- Clinical effectiveness in terms of improvement in psychological symptoms
- Effectiveness in terms of interpersonal and social functioning
- Effectiveness in terms of preference, satisfaction and acceptability of treatment
- Cost-effectiveness

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Hand-searches of Published Literature (Primary Sources)
Hand-searches of Published Literature (Secondary Sources)
Searches of Electronic Databases
Searches of Unpublished Data

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): The National Institute for Health and Clinical Excellence (NICE) commissioned an independent academic centre to perform a systematic literature review on the technology considered in this appraisal and prepare an assessment report. The assessment report for this technology appraisal was prepared by the School of Health and Related Research (ScHARR), University of Sheffield. (See the "Companion Documents" field.)

Search Strategies

The search aimed to identify all references relating to the clinical and cost effectiveness of computerised cognitive behavioural therapy for anxiety and depressive disorders, with particular emphasis on the literature published since the original NICE guidance (No. 51).

Sources Searched

Fifteen electronic bibliographic databases were searched, covering biomedical, health-related, science, social science, grey literature (including current research). A list of databases is provided in Appendix 1 of the Assessment Report (see "Availability of Companion Documents" field). In addition, the reference lists of relevant articles were checked and various health services research related resources were consulted via the Internet. These included health technology assessment (HTA) organisations, guideline producing bodies, generic research and trials registers and specialist mental health sites. A list of these additional sources is given in Appendix 2 of the Assessment Report (see "Availability of Companion Documents" field).

Search Terms

A combination of free-text and thesaurus terms was used. 'Population' search terms (e.g., depression, anxiety, panic, agoraphobia, phobia, obsessive compulsive disorder, etc.) were combined with 'intervention' terms (e.g., cognitive therapy, behavio(u)r therapy, psychotherapy, etc. AND computer, computerised, internet, computer-assisted instruction, multimedia, etc.). This was supplemented by more specific searches on named packages, such as Overcoming Depression, Beating the Blues, Restoring the Balance, Fearfighter, Cope, BT Steps, etc. Copies of the search strategies used in the major databases are included in Appendix 3 of the Assessment Report (see "Availability of Companion Documents" field).

Search Restrictions

No date, language, study or publication type restrictions were applied. This is because the searches included an additional population group (obsessive compulsive disorder) to the original NICE guidance.

Cost Effectiveness

In addition to the searches conducted above, searches were conducted in Medline, Embase, NHS EED and OHE HEED to specifically identify economic literature relating to anxiety and depressive disorders. The methodological search filters used are provided in Appendix 4 of the Assessment Report (see "Availability of Companion Documents" field).

Inclusion and Exclusion Criteria

The following inclusion criteria were used.

Subjects: adults with depression or anxiety with or without depression as defined by individual studies. To include generalised anxiety, panic disorders, agoraphobia, social phobia and specific phobias and obsessive-compulsive disorder.

Intervention: Cognitive behavioural therapy (CBT) delivered alone or as part of a package of care either via a computer interface (personal computer or Internet) or over the telephone with a computer response including the following software packages: Beating the Blues, Overcoming Depression, FearFighter, Cope and BT Steps.

Comparators: current standard treatments including therapist-led CBT, non-directive counselling, primary care counselling, routine management (including drug treatment) and alternative methods of CBT delivery (such as bibliotherapy and group CBT).

Outcomes: Improvement in psychological symptoms, interpersonal and social functioning, quality of life, preference, satisfaction, acceptability of treatment, site of delivery.

Study type: Papers were assessed according to the accepted hierarchy of evidence, whereby systematic reviews of randomised controlled trials are taken to be the most authoritative forms of evidence, with uncontrolled observational studies to be the least authoritative. Unpublished studies were included. Non-randomised controlled trial (RCT) evidence was included in this review in the absence of RCT evidence.

Studies from the previous review: Studies from the previous review of the included software packages were included if they were RCTs. Previous non-RCT evidence of the soft ware packages was included in this review in the absence of RCT evidence.

The following disorders did not fall within the remit of this review:

- Post traumatic stress disorder
- Post-natal depression
- Manic depression
- Depression with psychotic symptoms
- Past Tourette's syndrome
- Schizophrenia
- Bipolar disorder

- Psychosis
- Psychosurgery
- Current co-morbid major depression
- Serious suicidal thoughts or unstable medical conditions in the past 6 months
- Alcohol or substance abuse

Figure 1 in the Assessment Report shows a summary of study selection and exclusion. A list of excluded studies (including excluded studies from the previous review) is provided in Appendix 5 of the Assessment Report. (See the "Availability of Companion Documents" field.)

NUMBER OF SOURCE DOCUMENTS

Clinical Effectiveness

Twenty studies (including 2 academic in confidence) met the inclusion criteria for depression/anxiety and phobia/panic, ten studies of the five included software packages and ten other studies of computerised cognitive behaviour therapy (CCBT). With regard to the included software package studies, four of the ten were randomised controlled trials (RCTs). Of the ten other studies included in the review, nine were RCTs and one was a pseudo-randomised trial. An additional two studies of CCBT as a treatment adjunct for therapist led cognitive behaviour therapy (CBT) were also identified.

Four studies of CCBT for obsessive-compulsive disorder (OCD) were identified, two of which were RCTs and all of the included package, BT Steps.

Cost Effectiveness

The review of published studies identified one economic evaluation of CCBT. The only relevant study was also included in the submission of Ultrasis for Beating the Blues (BtB). This was a cost effectiveness analysis undertaken along side a randomised clinical trial of BtB compared to treatment as usual (TAU).

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Expert Consensus

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Not applicable

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Note from the National Guideline Clearinghouse (NGC): The National Institute for Health and Clinical Excellence (NICE) commissioned an independent

academic centre to perform a systematic literature review on the technology considered in this appraisal and prepare an assessment report. The assessment report for this technology appraisal was prepared by the School of Health and Related Research (ScHARR), University of Sheffield. (See the "Companion Documents" field.)

Quality Assessment Strategy

Quality assessment was based on the Critical Appraisal Skills Programme (CASP) checklist for randomized controlled trials (RCTs), as it is user friendly and practitioner based. The Downs & Black checklist was used for non-RCTs. Key components of quality assessment are listed in Appendices 6 & 7, Tables 2 and 3 of the Assessment Report (see the "Availability of Companion Documents" field).

Data Extraction Strategy

All abstracts were double read and consensus obtained. All data from included studies was extracted by one reviewer and checked by a second, using a standardised data extraction form, and any disagreements resolved by discussion.

Data Synthesis

Studies were assessed for suitability of pooling results with regard to populations, comparators outcomes and study type. The evidence base from the original computerized cognitive behavioural therapy (CCBT) review was also considered. Due to lack of sufficient similarity regarding these components, meta-analysis was not undertaken and the results were presented in tabulated format with narrative synthesis of the results.

Effect Sizes

Where appropriate data was provided in the studies, effect sizes were calculated for selected outcomes. The Assessment Report staff calculated two effect sizes, a within group effect size and a between group effect size (e.g., CCBT vs. therapist led cognitive behaviour therapy [TCBT]). The within group effect size was calculated as the mean change over time (i.e., initial-final) divided by the baseline standard deviation. A positive value denotes an improvement. The between group effect size was calculated as the difference in mean changes over time between the groups divided by the pooled baseline standard deviations of the two groups combined. Cohen suggests that the standardised effect sizes of 0.2 to 0.5 should be regarded as "small", 0.5 to 0.8 as "moderate" and those above 0.8 as "large". A positive value denotes that the first group had greater improvement compared to the second group.

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Considerations

Technology appraisal recommendations are based on a review of clinical and economic evidence.

Technology Appraisal Process

The National Institute for Health and Clinical Excellence (NICE) invites 'consultee' and 'commentator' organisations to take part in the appraisal process. Consultee organisations include national groups representing patients and carers, the bodies representing health professionals, and the manufacturers of the technology under review. Consultees are invited to submit evidence during the appraisal and to comment on the appraisal documents.

Commentator organisations include manufacturers of the products with which the technology is being compared, the National Health Service (NHS) Quality Improvement Scotland and research groups working in the area. They can comment on the evidence and other documents but are not asked to submit evidence themselves.

NICE then commissions an independent academic centre to review published evidence on the technology and prepare an 'assessment report'. Consultees and commentators are invited to comment on the report. The assessment report and the comments on it are then drawn together in a document called the evaluation report.

An independent Appraisal Committee then considers the evaluation report. It holds a meeting where it hears direct, spoken evidence from nominated clinical experts, patients and carers. The Committee uses all the evidence to make its first recommendations, in a document called the 'appraisal consultation document' (ACD). NICE sends all the consultees and commentators a copy of this document and posts it on the NICE website. Further comments are invited from everyone taking part.

When the Committee meets again it considers any comments submitted on the ACD; then it prepares its final recommendations in a document called the 'final appraisal determination' (FAD). This is submitted to NICE for approval.

Consultees have a chance to appeal against the final recommendations in the FAD. If there are no appeals, the final recommendations become the basis of the guidance that NICE issues.

Who is on the Appraisal Committee?

NICE technology appraisal recommendations are prepared by an independent committee. This includes health professionals working in the NHS and people who are familiar with the issues affecting patients and carers. Although the Appraisal Committee seeks the views of organisations representing health professionals, patients, carers, manufacturers and government, its advice is independent of any vested interests.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

The Assessment Group identified one published economic evaluation. No formal analyses of cost effectiveness were included in the manufacturer submissions. The Assessment Group developed its own economic models for the three disease areas: depression, panic/phobia and obsessive-compulsive disorder (OCD).

See Section 4.2 of the original guideline document for a detailed discussion of the cost-effectiveness analysis.

METHOD OF GUIDELINE VALIDATION

External Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Consultee organizations from the following groups were invited to comment on the draft scope, Assessment Report and the Appraisal Consultation Document (ACD) and were provided with the opportunity to appeal against the Final Appraisal Determination.

- Manufacturer/sponsors
- Professional/specialist and patient/carer groups
- Commentator organisations (without the right of appeal)

In addition, individuals selected from clinical expert and patient advocate nominations from the professional/specialist and patient/carer groups were also invited to comment on the ACD.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

This review concerns five specific packages for the delivery of computerised cognitive behaviour therapy (CCBT) accessed via a referral from a general practitioner (GP): three for depression (Beating the Blues, COPE and Overcoming Depression), one for panic/phobia (FearFighter) and one for obsessive-compulsive disorder (OCD) (OCFighter, previously known as BTSteps).

This guidance should be read in the context of the National Institute for Health and Clinical Excellence (NICE) Clinical Guidelines on depression, anxiety (Clinical guidelines for the management of anxiety) and OCD.

- Beating the Blues is recommended as an option for delivering cognitive behaviour therapy (CBT) in the management of mild and moderate depression.

- There is insufficient evidence to recommend the use of COPE and Overcoming Depression as a clinically or cost-effective option for the management of depression, except as part of ongoing or new clinical trials that are designed to generate robust and relevant data on the clinical effectiveness of these specific CCBT packages.
- FearFighter is recommended as an option for delivering CBT in the management of panic and phobia.
- OCFighter (previously known as BTSteps) is not recommended as an option for delivering CBT in the management of OCD.
- People currently using OCFighter, whether as routine therapy or as part of a clinical trial, should have the option to continue on therapy until the person, or the GP and/or specialist, consider it appropriate to stop.

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence supporting the recommendations is not specifically stated.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

Appropriate use of computerised cognitive behaviour therapy (CCBT) for depression and anxiety disorders

POTENTIAL HARMS

Not stated

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

This guidance represents the view of the Institute, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. The guidance does not, however, override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Implementation and Audit

- National Health Service (NHS) organisations that offer treatment for people with depression and anxiety and general practitioners (GPs) should review their current practice and policies to take account of the guidance (see the "Major Recommendations" field).
- Local guidelines, protocols or care pathways that refer to the care of people with depression or anxiety should incorporate the guidance.
- To measure compliance locally with the guidance, the following criteria could be used. Further details on suggestions for audit are presented in Appendix C of the original guideline document.
    - A person with mild or moderate depression is offered Beating the Blues as an option for the management of the condition as outlined in the current National Institute for Health and Clinical Excellence (NICE) clinical guideline for the stepped-care management of depression in primary and secondary care.
    - A person with depression is offered computerised cognitive behaviour therapy (CCBT) with COPE or Overcoming Depression only as part of an ongoing or new clinical trial that is designed to generate robust and relevant data on the clinical effectiveness of these specific CCBT packages.
    - A person with panic or phobia is offered the option of FearFighter as an option for the management of the condition as outlined in the current NICE clinical guideline for the stepped-care management of anxiety (panic disorder, with or without agoraphobia, and generalised anxiety disorder) in primary, secondary and community care.
    - A person with obsessive-compulsive disorder (OCD) is not offered CCBT with OCFighter. A person who is currently using OCFighter as routine therapy or as part of a clinical trial should have the option to continue on therapy until the person, or the GP and/or specialist, consider it appropriate to stop.

IMPLEMENTATION TOOLS

Audit Criteria/Indicators
Patient Resources
Quick Reference Guides/Physician Guides

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Living with Illness

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

National Institute for Health and Clinical Excellence (NICE). Computerised cognitive behaviour therapy for depression and anxiety. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 38 p. (Technology appraisal; no. 97).

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2006 Feb

GUIDELINE DEVELOPER(S)

National Institute for Health and Clinical Excellence (NICE) - National Government Agency [Non-U.S.]

SOURCE(S) OF FUNDING

National Institute for Health and Clinical Excellence (NICE)

GUIDELINE COMMITTEE

Appraisal Committee

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Committee Members: Professor Tony Ades, MRC Senior Scientist, MRC Health Services Research Collaboration, Department of Social Medicine, University of Bristol; Professor David Barnett (*Chair*) Professor of Clinical Pharmacology, University of Leicester; Dr Richard Cookson, Senior Lecturer in Health Economics, School of Medicine Health Policy and Practice, University of East Anglia; Professor Christopher Eccleston, Director Pain Management Unit, University of Bath; Professor Terry Feest, Professor of Clinical Nephrology, Southmead Hospital; Ms Alison Forbes, Lay Representative, Health Consultant Associate, Eden Insight; Mr Adrian Griffin, Health Outcomes Manager, Johnson & Johnson Medical Ltd; Dr Elizabeth Haxby, Lead Clinician in Clinical Risk Management, Royal Brompton Hospital; Dr Rowan Hillson, Consultant Physician, Diabeticare, The Hillingdon Hospital; Dr Catherine Jackson, Clinical Lecturer in Primary Care Medicine, Alyth Health Centre, Angus, Scotland; Dr Katherine Payne, Health Economist, The North West Genetics Knowledge Park, The University of Manchester; Dr Ann Richardson, Lay Representative, Independent Research Consultant; Professor Philip Routledge,

Professor of Clinical Pharmacology, College of Medicine, University of Wales, Cardiff; Dr Debbie Stephenson, Head of HTA Strategy, Eli Lilly and Company; Professor Andrew Stevens (*Vice-Chair*) Professor of Public Health, University of Birmingham; Dr Cathryn Thomas, General Practitioner, and Senior Lecturer, Department of Primary Care & General Practice, University of Birmingham; Dr David Winfield, Consultant Haematologist, Royal Hallamshire Hospital, Sheffield

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Committee members are asked to declare any interests in the technology to be appraised. If it is considered there is a conflict of interest, the member is excluded from participating further in that appraisal.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) format from the National Institute for Health and Clinical Excellence (NICE) Web site.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Computerised cognitive behaviour therapy for depression and anxiety (review). Quick reference guide. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 2 p. (Technology appraisal 97). Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.
- Computerised cognitive behaviour therapy for depression and anxiety update: a systematic review and economic evaluation. Assessment report. ScHARR; 2004 Dec 9. 606 p. Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.

Print copies: Available from the National Health Service (NHS) Response Line 0870 1555 455. ref: N0979. 11 Strand, London, WC2N 5HR.

PATIENT RESOURCES

The following is available:

- Computerised cognitive behaviour therapy for depression and anxiety. Understanding NICE guidance -- information for people with depression and anxiety, their families and carers, and the public. London (UK): National Institute for Health and Clinical Excellence (NICE); 2006 Feb. 9 p. (Technology appraisal 97).

Electronic copies: Available in Portable Document Format (PDF) from the National Institute for Health and Clinical Excellence (NICE) Web site.

Print copies: Available from the Department of Health Publications Order Line 0870 1555 455. ref: N0980. 11 Strand, London, WC2N 5HR.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC STATUS

This NGC summary was completed by ECRI on May 26, 2006.

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