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The clinical effectiveness and cost-effectiveness of low-intensity psychological interventions for the secondary prevention of relapse after depression: a systematic review

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The research reported in this issue of the journal was commissioned by the HTA programme as project number 09/67/01. The contractual start date was in June 2010. The draft report began editorial review in May 2011 and was accepted for publication in December 2011. As the funder, by devising a commissioning brief, the HTA programme specified the research question and study design.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 referees 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.

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Abstract

The clinical effectiveness and cost-effectiveness of low-intensity psychological interventions for the secondary prevention of relapse after depression: a systematic review

M Rodgers,[1]* M Asaria,[2] S Walker,[2] D McMillan,[3] M Lucock,[4,5] M Harden,[1] S Palmer[2] and A Eastwood[1]

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Background: Depression is the most common mental disorder in community settings and a major cause of disability across the world. The objective of treatment is to achieve remission or at least adequate control of depressive symptoms; however, even after successful treatment, the risk of relapse after remission is significant. Although the effectiveness of low-intensity interventions has been extensively evaluated to treat primary symptoms of psychological difficulties, there has been substantially less research examining the use of these interventions as a relapse prevention strategy.

Objective: To systematically review the clinical effectiveness and cost-effectiveness of low-intensity psychological or psychosocial interventions to prevent relapse or recurrence in patients with depression. As the broader definition of 'low-intensity' psychological intervention is somewhat contested, the review was conducted in two parts: A, a systematic review of all evaluations of 'low-intensity' interventions that were delivered by para-professionals, peer supporters or psychological well-being practitioners as defined by the Improving Access to Psychological Therapies programme; and B, a scoping review of relevant evaluations of interventions involving qualified mental health professionals (e.g. psychiatrists, clinical psychologists, cognitive behavioural therapists) involving < 6 hours of contact per patient.

Data sources: Comprehensive literature searches were developed; electronic databases were searched from inception until September 2010 (including MEDLINE, MEDLINE In-Process & Other Non-Indexed Citations, PsycINFO, EMBASE, The Cochrane Library), internet resources were used to identify guidelines on the treatment of depression, and the bibliographies of relevant reviews, guidelines and included studies were scrutinised.

Review methods: Two reviewers independently screened titles and abstracts; data were extracted independently by one reviewer using a standardised data extraction form and checked by another. Discrepancies were resolved by consensus, with involvement of a third reviewer when necessary. The inclusion criteria were *population* – adults or adolescents who had received treatment for depression; *intervention* – part A, low-intensity interventions, specifically any unsupported psychological/psychosocial interventions or any supported interventions that did not involve highly qualified mental health professionals, and, part B, interventions carried out by qualified mental health professionals that involved

< 6 hours of contact per patient; *comparator* – any, including no treatment, placebo, psychological or pharmacological interventions; *outcomes* – relapse or recurrence, other outcomes (e.g. social function, quality of life) were recorded where reported; and *study design* – for clinical effectiveness, randomised, quasi-randomised and non-randomised studies with concurrent control patients. For cost-effectiveness, full economic evaluations that compared two or more treatment options and considered both costs and consequences. No studies met the main part A inclusion criteria.

Results: For the clinical effectiveness review, 17 studies (14 completed, three ongoing), reported in 27 publications, met the part B inclusion criteria. These studies were clinically and methodologically diverse, and reported differing degrees of efficacy for the evaluated interventions. One randomised controlled trial (RCT), which evaluated a collaborative care-type programme, was potentially relevant to part A; this study reported no difference between patients receiving the intervention and those receiving usual care in terms of relapse of depression over 12 months. For the cost-effectiveness review, two studies met the criteria for part B. One of these was an economic evaluation of the RCT above, which was potentially relevant to part A. This evaluation found that the intervention may be a cost-effective use of resources when compared with usual care; however, it was unclear how valid these estimates were for the NHS.

Limitations: Although any definition of 'brief' is likely to be somewhat arbitrary, an inclusion threshold of 6 hours contact per patient was used to select brief high-intensity intervention studies. Most excluded studies evaluated clearly resource-intensive interventions, though occasionally, studies were excluded on the basis of having only slightly more than 6 hours contact per patient.

Conclusions: There is inadequate evidence to determine the clinical effectiveness or cost-effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression. A scoping review of brief high-intensity therapies indicates that some approaches have shown promise in some studies, but findings have not been consistent. Many uncertainties remain and further primary research is required. Careful consideration should be given to the scope of such research; it is important to evaluate the broader patient pathway accounting for the heterogeneous patient groups of interest. Future RCTs conducted in a UK primary care setting should include adult participants in remission or recovery from depression, and evaluate the quality of the intervention and consistency of delivery across practitioners where appropriate. The occurrence of relapse or recurrence should be measured using established methods, and functional outcomes as well as symptoms should be measured; data on quality of life using a generic instrument, such as the European Quality of Life-5 Dimensions (EQ-5D), should be collected.

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Contents

List of abbreviations

AD-SUS	Adult Service Use Schedule
ADM	antidepressant medication
BDI	Beck Depression Inventory
BT	behaviour therapy
CBT	cognitive behavioural therapy
CCBT	computerised cognitive behavioural therapy
CDSR	Cochrane Database of Systematic Reviews
CEAC	cost-effectiveness acceptability curve
CENTRAL	Cochrane Central Register of Controlled Trials
CGI-I	Clinical Global Impression Improvement Scale
CHE	Centre for Health Economics
CI	confidence interval
CID	Clinical Interview for Depression
CRD	Centre for Reviews and Dissemination
CWD	Coping with Depression course
DARE	Database of Abstracts of Reviews of Effects
DASS	Depression Anxiety Stress Scale
DSM-III-R	*Diagnostic and Statistical Manual of Mental Disorders* – Third Edition-Revised
DSM-IV	*Diagnostic and Statistical Manual of Mental Disorders* – Fourth Edition
EQ-5D	European Quality of Life-5 Dimensions (EQ-5D™ is a trade mark of the EuroQol Group; it is a standardised measure of health-related quality of life)
GP	general practitioner
HMO	health maintenance organisation
HRQoL	health-related quality of life
HTA	Health Technology Assessment
IAPT	Improving Access to Psychological Therapies programme
ICD-10	*International Statistical Classification of Diseases and Related Health Problems*, 10th Edition
ICER	incremental cost-effectiveness ratio
IPT	interpersonal therapy
ITT	intention to treat
m-ADM	maintenance antidepressant medication
MADRS	Montgomery–Åsberg Depression Rating Scale
MBCT	mindfulness-based cognitive therapy
NHS EED	NHS Economic Evaluation Database
NICE	National Institute for Health and Clinical Excellence
NIHR	National Institute for Health Research
PMS	Psychiatric Morbidity Survey
PPP	purchasing power parity
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
PSS	Personal Social Services
PST	problem-solving therapy
PWP	psychological well-being practitioner
QALY	quality-adjusted life-year
QoL	quality of life
RCT	randomised controlled trial
RDC	Research Diagnostic Criteria
SCID	Structured Clinical Interview for DSM Disorders

SCL-20	20-item Hopkins Symptom Checklist
SIGN	Scottish Intercollegiate Guidelines Network
SNRI	serotonin–norepinephrine reuptake inhibitor
SSRI	specific serotonin reuptake inhibitor
TAU	treatment as usual
TCA	tricyclic antidepressant
USD	US dollar
YLD	year lost to disability

All abbreviations that have been used in this report are listed here unless the abbreviation is well known (e.g. NHS), or it has been used only once, or it is a non-standard abbreviation used only in figures/tables/appendices, in which case the abbreviation is defined in the figure legend or in the notes at the end of the table.

Executive summary

Background

The term 'depression' can refer to a range of mental health problems primarily characterised by persistent depressed mood and loss of interest in activities, among other associated emotional, cognitive, physical and behavioural symptoms. It is the most common mental disorder in community settings, and a major cause of disability across the world. The objective of treatment is to achieve remission or at least adequate control of depressive symptoms; however, even after successful treatment, the risk of relapse after remission is significant. In many of these individuals this pattern becomes worse, with subsequent recurrent depressive episodes, increasing in severity and frequency, and a lack of responsiveness to treatments.

The majority of patients diagnosed with depression receive psychological, pharmacological or combined treatment in primary care. Psychological treatments for depression include cognitive behavioural therapy (CBT), behaviour therapy, interpersonal psychotherapy, problem-solving therapy and counselling. However, such treatments, which involve one-to-one therapy with a mental health professional over extended periods of time, are resource intensive. Consequently, less intensive therapies and innovative delivery formats, such as group-based work, have been developed. Less resource-intensive therapies include a variety of psychological treatments in which there is no, or only low-level, therapist involvement, for example computerised CBT, guided self-help and structured group physical activity. Such interventions have been termed 'low intensity', although there is no agreed definition of a low-intensity psychological intervention.

It is important to develop interventions and services not only to reduce depressive symptoms and restore functioning, but also to enable people to self-manage their problems and prevent relapse and recurrence of episodes of major depression. Although the effectiveness of low-intensity interventions has been extensively evaluated to treat primary symptoms of psychological difficulties, there has been substantially less research examining the use of these interventions as a relapse prevention strategy.

Objectives

The aim of this project was to systematically review the clinical effectiveness and cost-effectiveness of low-intensity psychological or psychosocial interventions to prevent relapse or recurrence in patients with depression. As the broader definition of 'low-intensity' psychological intervention is somewhat contested, and the resources of the review were limited, the review was conducted in two parts:

(a) a systematic review of all evaluations of 'low-intensity' interventions that were delivered by para-professionals, peer supporters or psychological well-being practitioners as defined by the Improving Access to Psychological Therapies programme
(b) a scoping review of relevant evaluations of interventions involving qualified mental health professionals (e.g. psychiatrists, clinical psychologists, cognitive behavioural therapists) involving < 6 hours of contact per patient.

Methods

Comprehensive literature searches were developed to systematically identify relevant studies. For the clinical effectiveness review, eight databases were searched from inception until September 2010 (including MEDLINE, MEDLINE In-Process & Other Non-Indexed Citations, PsycINFO, EMBASE, The Cochrane Library); the searches were restricted to studies published after 1950 and no language restrictions or study design filters were applied. A range of internet resources were searched or browsed to identify guidelines on the treatment of depression. The bibliographies of relevant reviews and guidelines and included studies were scrutinised. For the cost-effectiveness review, terms were added to the strategy to limit retrieval to economic studies, and additional economic databases searched (EconLit, NHS Economic Evaluations Database, IDEAS).

For the clinical effectiveness review, studies from any country and reported in any language were eligible for inclusion provided that they met the following inclusion criteria:

- *Population*: adults or adolescents who had received treatment for depression; studies of participants with bipolar disorder were excluded, as were studies of children.
- *Intervention*
  - Part A – low-intensity interventions, specifically any unsupported psychological/psychosocial interventions or any supported interventions that did not involve highly qualified mental health professionals. Inclusion was not restricted by length of treatment, number of sessions or mode of delivery.
  - Part B – interventions involving qualified mental health professionals, which involved < 6 hours of contact per patient (for group treatment, average contact estimates per patient were calculated).
- *Comparator*: any comparator, including no treatment, placebo, psychological or pharmacological interventions.
- *Outcomes*: main outcomes related to relapse or recurrence, other relevant outcomes such as social function and quality-of-life (QoL) measures were recorded where reported.
- *Study design*: randomised, quasi-randomised and non-randomised studies with concurrent control patients.

For the cost-effectiveness review, in addition to the above criteria, only full economic evaluations that compared two or more treatment options and considered both costs and consequences were included.

Two reviewers independently screened titles and abstracts; data were extracted independently by one reviewer using a standardised data extraction form and checked by another. Discrepancies were resolved by consensus, with involvement of a third reviewer when necessary. Quality assessment was undertaken using published checklists.

Results

For the clinical effectiveness review, a total of 9112 unique records were identified from the searches and 129 articles were ordered for assessment. No studies met the main part A inclusion criteria; 17 studies (14 completed, three ongoing), reported in 27 publications, met the part B inclusion criteria. These studies were clinically and methodologically diverse, and reported differing degrees of efficacy for the evaluated interventions. One study was felt to be of potential relevance to the main focus of the project – a randomised controlled trial (RCT) that evaluated a collaborative care-type programme, specifically aimed at prevention of depressive relapse in

high-risk patients in a US primary care setting. This study, which involved providing patients with face-to-face, telephone and postal contact with trained 'depression specialists', reported no difference between patients receiving the intervention and those receiving usual care in terms of relapse of depression over 12 months.

For the cost-effectiveness review, a total of 466 unique records were identified from the searches and 23 articles were ordered for assessment. No studies met the part A inclusion criteria, but two studies met the criteria for part B. One of these was an economic evaluation of the same study, identified as being potentially relevant to the main focus of the project in the clinical effectiveness review. This study found that the intervention may be a cost-effective use of resources when compared with usual care; however, it was unclear how valid these estimates were for the NHS. The other study was a cost-effectiveness analysis of a trial of mindfulness-based cognitive therapy (MBCT) in a primary care setting, and presented inconclusive and highly uncertain results.

Discussion

This is currently the only systematic review of the literature on the clinical effectiveness and cost-effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression. This review also incorporated a scoping exercise covering evaluations of brief, high-intensity therapies for the prevention of relapse or recurrence typically delivered by clinical psychologists, CBT therapists, and other qualified mental health professionals. There is a need for further primary research on the effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression.

The limited available research has shown that RCTs are feasible, and any future RCTs should:

- be conducted in a UK primary care setting
- consider the entire patient pathway
- include adult participants in remission or recovery from depression, and collect relevant data at baseline, including number of previous episodes of depression
- evaluate the quality of the intervention and consistency of delivery across practitioners, if supported
- be long enough to capture the effect on relapse/recovery
- measure the occurrence of relapse or recurrence using established methods such as the Structured Clinical Interview for DSM Disorders, and measure functional outcomes as well as symptoms
- collect data on QoL using a generic instrument such as the European Quality of Life-5 Dimensions (EQ-5D).

Recent clinical guidelines published by the Scottish Intercollegiate Guidelines Network (SIGN) suggest that MBCT in a group setting may be considered as a treatment option to reduce relapse in patients with depression who have had three or more episodes (SIGN. *Non-pharmaceutical management of depression in adults. A national clinical guideline*. Edinburgh: SIGN; 2010). This recommendation was based on a systematic review performed in 2007 (Coelho HF, Canter PH, Ernst E. Mindfulness-based cognitive therapy: evaluating current evidence and informing future research. *J Consult Clin Psychol* 2007;**75**:1000–5). The current scoping review identified three further RCTs of group-based MBCT not included in the 2007 review, two of which are UK-based and currently ongoing [Kuyken W. *Preventing depressive relapse in NHS practice through mindfulness-based cognitive therapy (MBCT)*. The National Institute for Health Research Health Technology Assessment Programme; 2010. URL: www.hta.ac.uk/1924 (cited 17 November 2010); Williams JMG, Russell IT, Crane C, Russell D, Whitaker CJ, Duggan DS, *et al*. Staying well after

depression: trial design and protocol. *BMC Psychiatry* 2010;**10**:23]. An updated systematic review of group-based MBCT on completion of these trials may be of value. Any such systematic review should investigate any potential impact of the duration and intensity of the intervention on the relapse and recurrence of depression.

Conclusions

There is inadequate evidence to determine the clinical effectiveness or cost-effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression. A scoping review of brief high-intensity therapies indicates that some approaches (e.g. MBCT in a group setting) have shown promise in some studies, but findings have not been consistent.

There is a need for further primary research, and careful consideration should be given to the scope of such research to inform this issue. It is important to evaluate the broader patient pathway accounting for the heterogeneous patient groups of interest.

Future RCTs should be conducted in a UK primary care setting and include adult participants in remission or recovery from depression. They should evaluate the quality of the intervention and consistency of delivery across practitioners where appropriate. The occurrence of relapse or recurrence should be measured using established methods, and functional outcomes as well as symptoms should be measured; data on QoL using a generic instrument, such as the EQ-5D, should be collected.

Funding

Funding for this study was provided by the Health Technology Assessment programme of the National Institute for Health Research.

Chapter 1

Background

Description of health problem

The term 'depression' can refer to a range of mental health problems primarily characterised by persistent depressed mood and loss of interest in activities, among other associated emotional, cognitive, physical and behavioural symptoms.[1]

Depression is the most common mental disorder in community settings, and a major cause of disability across the world. A World Health Organization cross-sectional survey revealed the global 1-year prevalence of a depressive episode to be 3.2%.[2] The prevalence is greater still in people with other medical conditions (e.g. 10–14% of patients receiving general hospital care).[3] Neuropsychiatric disorders account for one-third of all years lost to disability (YLDs), with unipolar major depressive disorder alone accounting for 11% of global YLDs.[3]

The Psychiatric Morbidity Survey (PMS) of UK adults aged 16–74 years in 2000 reported a overall prevalence rate for depression of 26 per 1000 people, with slightly higher rates for women than for men.[4] This survey also suggested that having a depressive episode was associated with unemployment, belonging to social classes 4 and below, having no formal educational qualifications, living in local authority or housing association accommodation, moving three or more times in the last 2 years, and living in an urban environment.[4]

Various theories for the causation of depression have derived from research on the impact of physical and endocrine processes,[5] brain structure and function,[6] and cognitive and emotional processes.[7] All of these factors are likely to influence an individual's vulnerability to depression, alongside factors such as gender, genetic and family factors, adverse childhood experiences, personality factors and social circumstances.[8] In terms of depression, vulnerability factors (e.g. genetic factors) interact with social or physical triggers, such as stressful life events or physical illness, to result in a depressive episode. The stress–vulnerability model suggests that the probability of a mental health problem occurring is based on an interaction between a person's vulnerability to developing that problem and that person's exposure to particular stressors or risk factors for that problem.[9] However, some episodes of depression occur in the absence of a stressful event, and, conversely, many such events are not followed by a depressive disorder in those with vulnerabilities.[8]

Even after successful treatment, the risk of relapse after remission is significant, and has been reported as 50% among patients having experienced one episode of major depression, and 70% and 90% after two and three episodes, respectively.[10] In many of these individuals this pattern becomes worse with subsequent repeated depressive episodes, with an increase in severity and frequency and a lack of responsiveness to treatments.[11,12] Research has shown that the long-term outcome for those individuals who experience multiple episodes has altered little in the last 20 years.[13] At least 10% of patients have persistent or chronic depression.[14]

Current guidance from the National Institute for Health and Clinical Excellence (NICE) cites a review by the King's Fund, which estimated that there were 1.24 million people with depression in England in 2006, and this was projected to rise to 1.45 million by 2026. Based on these figures,

the total costs for depression in 2007 (including prescribed drugs, inpatient care, other NHS services, supported accommodation, social services and lost employment in terms of workplace absenteeism) were estimated to be £1.7B, with lost employment increasing this total to £7.5B. These figures were projected to be £3B and £12.2B, respectively, by 2026.[15]

Diagnosis

Depression is typically diagnosed according to criteria set out in either the *Diagnostic and Statistical Manual of Mental Disorders* – Fourth Edition (DSM-IV),[1] or the *International Statistical Classification of Diseases and Related Health Problems*, 10th Edition (ICD-10).[16] DSM-IV was developed by the American Psychiatric Association, whereas the ICD-10 is the comparable European guide for diagnosis of mental disorders. Although similar, the two systems are not identical, having slightly differing thresholds for the number of symptoms required for a depressive episode (as termed in ICD-10; 'major depressive episode' in DSM-IV).

The 2010 NICE guideline[8] on depression states that a diagnosis of a depression requires assessment of three linked but separate factors: (1) severity, (2) duration and (3) course. Diagnosis requires a minimum of 2 weeks' duration of symptoms and including at least one key symptom (low mood, loss of interest or pleasure). Individual symptoms should be assessed for severity and impact on function and be present for most of every day. The following categories adapted from DSM-IV were outlined:

- subthreshold depressive symptoms (fewer than five out of nine symptoms of depression)
- mild depression (few, if any, symptoms in excess of the five required to make the diagnosis, and the symptoms result in only minor functional impairment)
- moderate depression (symptoms or functional impairment are between 'mild' and 'severe')
- severe depression (most symptoms, and the symptoms markedly interfere with functioning).

Treatment

The objective of treatment is to achieve remission or at least adequate control of depressive symptoms. For some, depression can become a gateway to a lifetime of disability and impairment, so it is important to develop interventions and services to not only reduce depressive symptoms and restore functioning, but also to enable people to self-manage their problems and prevent relapse and recurrence of episodes of major depression. This acknowledgement of the nature of recurrent depression and the high potential of recurrence has therefore led to a greater emphasis on long-term management approaches.[17]

Many people are unwilling to seek help for depression and there is a failure to recognise depression, especially in primary care; of those patients diagnosed with depression, the majority will receive psychological, pharmacological or combined treatment in primary care.[8] Pharmacological treatments typically include antidepressant agents such as tricyclic antidepressants (TCAs) or, more commonly, specific serotonin reuptake inhibitors (SSRIs). Other drugs used either alone or in combination with antidepressants include lithium salts and antipsychotics, although these are usually reserved for people with severe, psychotic or chronic depression, or as prophylactics.[8] Psychological treatments for depression reviewed in the most recent NICE depression guidelines include cognitive behavioural therapy (CBT), behaviour therapy (BT), interpersonal therapy (IPT), problem-solving therapy (PST), counselling, short-term psychodynamic psychotherapy and couple-focused therapies. Owing to the different needs of individuals with depression, the NICE clinical guidelines advocate a 'stepped-care' treatment model (*Figure 1*), which aims to provide a framework to organise the provision of services supporting patients, carers and health-care professionals in identifying and accessing the most effective interventions.[8]

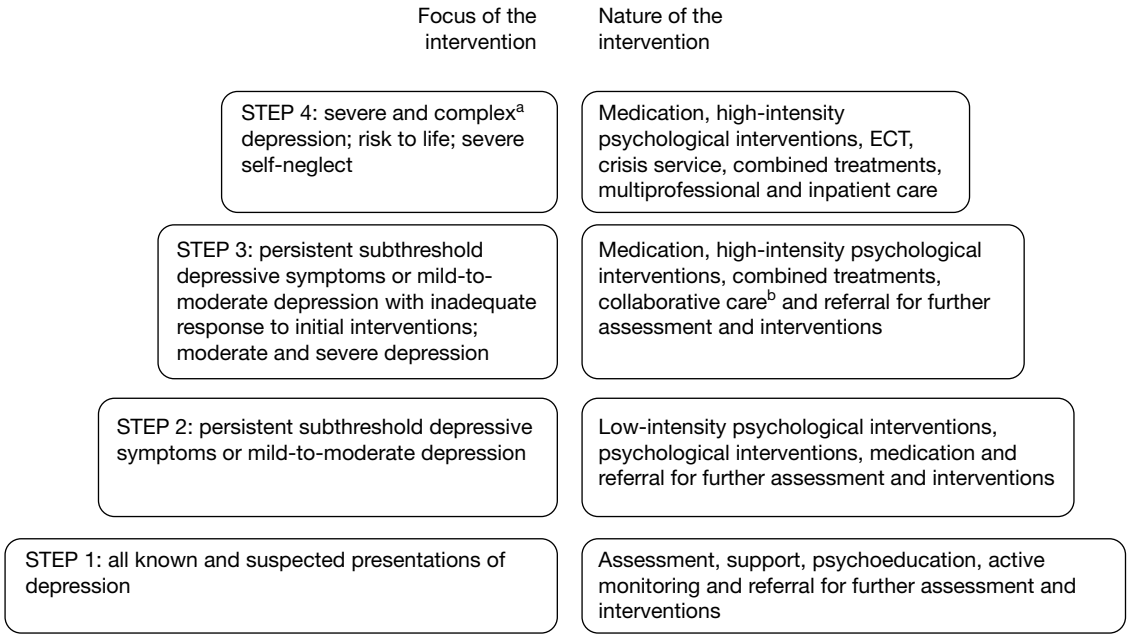

FIGURE 1 The stepped-care model.[8] a, Complex depression includes depression that shows an inadequate response to multiple treatments, is complicated by psychotic symptoms and/or is associated with significant psychiatric comorbidity or psychosocial factors. b, Only for depression in someone who also has a chronic physical health problem and associated functional impairment (see 'Depression in adults with a chronic physical health problem: treatment and management', NICE clinical guideline 91[8]). ECT, electroconvulsive therapy.

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Improving access to psychological therapies

The Improving Access to Psychological Therapies (IAPT) programme was launched by the UK government in October 2007. The programme aimed to invest an additional £173M per annum from 2008 to 2011 in evidence-based psychological therapies for the treatment of depression or anxiety disorders recommended by NICE, and to promote a more person-centred approach to therapy.[18] Both 'low-intensity' (e.g. guided self-help, computerised CBT) and 'high-intensity' interventions (e.g. CBT, IPT, counselling) were considered within NICE's proposed stepped-care model, within which low-intensity approaches would initially be considered for the treatment of mild-to-moderate depression.[8] Much of the IAPT investment is for the training of new psychological therapists to deliver such low-intensity interventions.[18] These 'psychological well-being practitioners' (PWPs; previously termed 'low-intensity therapy workers') typically provide high-volume, low-intensity cognitive behaviour-based interventions to patients with less severe depression and/or anxiety disorders.

A key argument initially put forward for increasing access to psychological services was the potential for a reduction in public costs (e.g. welfare benefits, medical costs) and increase in revenues (e.g. taxes from return to employment, increased productivity).[19,20] Although this argument was put forward on the basis of many people being unable to access appropriate mental health services, the notion of improving access to low-intensity interventions in order to prevent relapse of depression even among treated patients might also be considered an investment on similar grounds.

Low-intensity interventions for depression

In general, people with depression tend to prefer psychological and psychosocial interventions to pharmacological interventions.[21] However, high-intensity psychological and psychosocial therapies (e.g. CBT, problem-solving, counselling) that involve one-to-one therapy with a mental health professional over extended periods of time are resource intensive. Consequently, less intensive therapies and innovative delivery formats such as group-based work have been developed. Less resource-intensive therapies include a variety of psychological treatments in which there is no or only a low level of therapist involvement, including computer-delivered treatment and bibliotherapy among other intervention technologies. The 2010 NICE guideline[8] on depression refers to such approaches as 'low-intensity psychosocial interventions' and provides clinical evidence on three main forms of low-intensity therapy:

- Computerised cognitive behavioural therapy (CCBT) provides a structured programme of care based on the principles of standard therapist-delivered CBT, but is delivered via a CD-ROM/DVD or the internet. Where CCBT is delivered as a primary intervention with minimal therapist involvement, it is considered a low-intensity intervention.
- Guided self-help involves the use of evidence-based self-help books or manuals aimed specifically at depression. Guided self-help is distinct from 'pure' self-help in that a health-care professional (or para-professional) facilitates the use of the material by introducing, monitoring and assessing the outcome of the intervention.
- Physical activity programmes have been defined as any structured physical activity with a recommended frequency, intensity and duration when used for depression. This could be aerobic (e.g. running/jogging, dancing) or anaerobic (e.g. resistance training), and be supervised or unsupervised, and undertaken in a group or individually.

The NICE clinical practice guidelines recommend that CCBT, individual-guided self-help and structured group physical activity programmes be considered for people with persistent subthreshold depressive symptoms or mild-to-moderate depression. The recommended duration of CCBT and guided self-help is 9–12 weeks including follow-up. Group physical activity with practitioner support is recommended for three sessions per week over 10–14 weeks.[8]

Although the NICE guidance covers low-intensity psychological interventions, it does not provide a clear definition of what constitutes 'low-intensity' treatment more broadly. However, recent good practice guidance produced by the IAPT programme states[22] that 'A low-intensity intervention … may use simple or "single strand" approaches that are less complex to undertake than formal psychotherapy; contact with people is generally briefer than in other forms of therapy and can be delivered by para-professionals or peer supporters using non-traditional methods such as telephone or the internet'. Low intensity, therefore, is defined on the basis of four characteristics: the complexity of the intervention, the duration of contact, the level of training and the mode of delivery. In IAPT, a particular emphasis is on interventions delivered by PWPs without formal health-care professional or CBT therapist qualifications.[23] Although the IAPT guidance states that there is no arbitrary session limit, evidence from the IAPT demonstration site showed that the mean number of low-intensity CBT-based interventions was around five per person, although there was considerable variability around this figure.[22]

A similar definition of low intensity is offered by Bennett-Levy *et al*,[24] who identified the ability of an intervention to offer high-volume access to treatment as the defining feature of a low-intensity intervention, which can be achieved through strategies such as reduced practitioner–patient contact and the use of practitioners who do not have formal professional or high-intensity therapy qualifications. They also pointed out that the definition of low intensity remains contested. For example, they chose to include mindfulness-based cognitive therapy (MBCT) as

a low-intensity treatment. This is a complex intervention that is typically delivered by a qualified mental health professional with specific expertise in its delivery but which limits patient contact time per therapist because it is delivered in a group format. They recognised that not everyone would agree with its inclusion.

Relapse and recurrence of depression

Given the high risk of repeated depressive episodes for some individuals with depression, it is important to aim not only to reduce depressive symptoms and restore functioning, but also to enable people to self-manage their problems and prevent relapse and recurrence of episodes of major depression.

Definitions

In an effort to standardise terms and facilitate communication, several conceptual definitions of improvement and subsequent return of depressive symptoms exist.[25–26] In terms of improvement, a distinction is made between response, remission and recovery. Response is defined as a clinically meaningful improvement in depressive symptoms that has continued for a sufficient length of time (3 consecutive weeks) to protect against misclassification owing to symptom variation or measurement error.[26] Response is typically operationalised as an improvement of ≥ 50% over pre-treatment scores. However, problems have been noted with this approach; for example, such a definition may be too stringent for patients with highly treatment-resistant depression.[26]

Remission relies on a definition of an asymptomatic range, defined as the presence of no or very few symptoms. A person can be judged to be in the asymptomatic range only if neither of the two essential features of depression (sad mood and loss of interest or pleasure) is present and fewer than three of the additional core symptoms of depression are present.[26] Remission requires that the person remains in this range for at least 3 weeks, again to protect against factors such as natural symptom variation. After this point, remission status is still ascribed if the person's symptoms fall above the asymptomatic range but fall short of meeting diagnostic criteria for a major depressive episode. Recovery is defined as an extended length of time in remission, which has been operationalised as at least 4 months.[26]

The definitions of relapse and recurrence are linked to these definitions of improvement. Relapse occurs when a person in remission experiences a return to full symptoms of a major depressive episode. Relapse, therefore, occurs after achieving remission but before the recovery phase. Recurrence indicates the return to the full symptoms of depression after a person has achieved recovery status.

The definitions of relapse and recurrence are also linked to the differentiation of treatment phases. Acute-phase treatment is defined as treatment during an episode of depression, the aim of which is to achieve remission. Continuation-phase treatment occurs during the remission phase with the aim of continuing remission and ultimately achieving recovery. Maintenance treatment occurs during the recovery stage with the aim of maintaining this state.

Despite these definitions, there is still inconsistent use of the terminology within the literature, particularly in terms of the distinction made between relapse and recurrence. In the current project, 'relapse and recurrence' will be used as phrase throughout to refer to the return of full depressive symptoms. When the results of particular studies are described the terms used in that study are retained, even when their use is different to the definitions given above.

Interventions to reduce depressive relapse or recurrence

Pharmacological interventions

Although the preventative effects of antidepressant medication do not extend beyond the end of treatment,[27] there is evidence that their continued use after an acute treatment phase can reduce the risk of relapse. A systematic review identified 31 randomised controlled trials (RCTs: total $n = 44{,}210$) that compared continued treatment with a range of antidepressants (predominantly TCAs and SSRIs) against placebo in people who had responded to treatment with antidepressants during an acute phase.[28] Continued treatment ranged from under 6 months to 36 months, with most studies having approximately 12 months of follow-up. Relapse rates were 41% in the placebo group and 19% for those continuing active medication [pooled odds ratio for relapse = 0.30, 95% confidence interval (CI) 0.22 to 0.38]. The different classes of antidepressant performed comparably and there appeared to be no substantial differences in the proportional risk reduction according to length of initial treatment or continued treatment. The majority of the studies were conducted in secondary care settings, so caution is needed in generalising these results to primary care settings, in which the risk of relapse may be lower.[28]

High-intensity psychological interventions

Unlike pharmacological interventions, psychological treatment during an acute phase does have relapse-preventative effects that continue beyond the end of treatment. A meta-analysis of the effect of CBT on reducing relapse and recurrence in depression identified seven trials that compared relapse rates after acute-phase treatment with CBT or antidepressant medication in which no continuation phase was offered for either treatment. CBT significantly reduced relapse compared with medication.[29] Over a mean of 68 weeks' follow-up, relapse–recurrence rates were 39% for CBT and 61% for medication.[29]

Meta-analyses of behavioural activation, an intervention that shares some similarities with CBT, suggest no significant differences between acute-phase behavioural activation and CBT in terms of depressive symptoms at follow-up.[30–32] For example, one meta-analysis found effect sizes that were small and non-significant at a range of follow-up time points (1–3, 4–6, 7–12 and 13–24 months),[32] although for the longest phase of follow-up findings relied on a small number of studies.[33–34] Evidence for the effects of other psychological treatments relative to CBT is small, but there are indications of no significant differences between acute-phase CBT and other treatments, such as IPT, in terms of relapse rates.[35]

Although there is evidence that psychological interventions have preventative effects that continue after the end of treatment, it is of note that subsequent rates of relapse remain high; for example, one review reports a 1-year relapse–recurrence rate of 29% and 2-year rate of 54% for those who had responded to acute-phase CBT.[29] Acute-phase psychological treatment, although it reduces relapse relative to acute-phase antidepressant medication, may also be insufficient for the reduction of relapse risk. In recognition of this, a number of continuation-phase psychological interventions have been developed.

Vittengl *et al.*[29] identified four trials that compared continuation- or maintenance-phase CBT with a non-active control treatment. In these studies, continuation treatment significantly reduced relapse–recurrence relative to control. Over a mean of 41 weeks of follow-up, relapse–recurrence rates were 12% in the CBT, whereas in the control arms the rates were 38%. Vittengl *et al.*[29] also compared the preventative effects of continuation-phase CBT with those of other active treatments. This comparison identified five studies. Although there were no significant differences, there was a trend towards significance favouring CBT ($p < 0.06$). Over a mean of 27 weeks, relapse–recurrence rates were 10% for CBT and 22% for the other active treatments.[29]

A small number of studies have also compared continuation and maintenance IPT with non-active control subjects and active treatments. One study randomised currently remitted patients with recurrent depression to one of five arms: (1) IPT alone; (2) IPT and antidepressant medication (imipramine) at acute dosage; (3) IPT with a drug placebo; (4) antidepressant medication (imipramine) at acute dosage with medication clinical visits; and (5) drug placebo with medication clinical visits. Survival analysis suggested that the addition of IPT to antidepressant did not lower recurrence rates compared with antidepressant treatment alone. IPT without active medication had a prophylactic effect between antidepressant medication and placebo.[36] A study by the same research group in adults aged > 60 years found that the combination of maintenance antidepressant medication (nortriptyline) and IPT showed a trend towards significance relative to antidepressant treatment alone in reducing recurrence.[37]

Low-intensity psychological interventions

Although the effectiveness of low-intensity interventions has been extensively evaluated to treat primary symptoms of psychological difficulties,[38–40] there has been substantially less research examining the use of these interventions as a relapse prevention strategy.

As discussed earlier, the definition of a low-intensity psychological intervention is not agreed on, which can make it difficult to distinguish low-intensity interventions from high-intensity interventions. The Vittengl *et al.*[29] meta-analysis, for instance, combined studies that would clearly be classified as high intensity with those that under some definitions could be classified as low intensity, such as MBCT.[29] We were unable to identify any previous reviews that focused exclusively on low-intensity interventions, however defined. This is the aim of the current review.

Chapter 2

Definition of decision problem

Decision problem

The decision problem concerns the clinical effectiveness and cost-effectiveness of low-intensity psychological interventions to prevent relapse or recurrence in patients who have received and responded to treatment for depression.

As discussed above, the terms relapse and recurrence are not consistently used in the literature. Therefore, we have considered both relapse and recurrence; we will refer to relapse or recurrence in our discussions unless a clear distinction has been made between the terms, but when reporting the findings of identified studies we will use the terminology as defined by individual study authors.

There is a lack of a clear, generally agreed on definition of low-intensity psychological interventions. We chose to emphasise the characteristic of the practitioner delivering the treatment as the main defining feature because of the current policy and practice context in the UK. Low-intensity psychological interventions are predominantly used in IAPT services, and in these services they are delivered by PWPs, who do not have formal health-care professional or CBT therapist qualifications.

However, in recognition that the definition of low intensity remains unclear, we also considered a broader definition of brief interventions typically delivered by clinical psychologists, CBT therapists, and other qualified mental health professionals involving limited patient contact time (delivered in a group setting or involving brief individual encounters). An inclusion threshold of 6 hours of contact per patient was used to select these intervention studies. We did not distinguish between the types of group intervention, although there is a very wide range; some interventions, such as psychoeducational groups and large community-based interventions, are low intensity, whereas others are high intensity and require high-level group therapy skills. For group interventions, the total contact time of the mental health professional(s) was divided by the number of patients in the group to create an average duration per patient. Although of less direct relevance to the decision problem, these interventions may be of interest to decision-makers concerned with improving access to psychological therapies, and so the literature in this area is briefly described and classified in a scoping review. Thus, the review was conducted in two parts as described below.

Overall aims and objectives

The main aims of this project are to determine the clinical effectiveness and cost-effectiveness of low-intensity psychological or psychosocial interventions to prevent relapse or recurrence in patients with depression.

As the broader definition of 'low-intensity' psychological intervention is somewhat contested, and the resources of the review were limited, the review was conducted in two parts:

1. A systematic review of all evaluations of 'low-intensity' interventions that were delivered by para-professionals, peer supporters or PWPs as defined by the IAPT programme. Such evaluations were not restricted by length of treatment or number of sessions.
2. A scoping review of all relevant evaluations of interventions involving qualified mental health professionals (e.g. psychiatrists, clinical psychologists, CBT therapists) involving < 6 hours of contact per patient.

Chapter 3

Assessment of clinical effectiveness

The review of the evidence for clinical effectiveness was undertaken systematically following the general principles recommended in the Centre for Reviews and Dissemination (CRD)'s guidance for undertaking reviews in health care[41] and the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement.[42]

Methods for reviewing clinical effectiveness

Search strategy

Literature searches were developed to systematically identify studies on the effectiveness of low-intensity psychological interventions to prevent relapse or recurrence after depression. The base search strategy was constructed using MEDLINE and then adapted for other resources searched. The search strategy included the following components:

1. depression terms, *and*
2. relapse terms, *and*
3. low-intensity psychological intervention-related terms.

The searches were restricted to studies published after 1950. No language restrictions or study design filters were applied.

Search terms were identified by scanning key papers identified at the beginning of the project, through discussion with the review team and clinical experts, and the use of database thesauri.

Sources of information were identified by an information specialist with input from the project team. The following databases were searched during September 2010:

- MEDLINE (via OvidSP)
- MEDLINE In-Process & Other Non-Indexed Citations (via OvidSP)
- PsycINFO (via OvidSP)
- EMBASE (via OvidSP)
- The Cochrane Library (via Wiley)
  - CDSR (Cochrane Database of Systematic Reviews)
  - DARE (Database of Abstracts of Reviews of Effects)
  - CENTRAL (Cochrane Central Register of Controlled Trials)
  - HTA (Health Technology Assessment Database)
- Science Citation Index (via ISI Web of Knowledge)
- Social Science Citation Index (via ISI Web of Knowledge)
- BIOSIS Previews (via ISI Web of Knowledge and Dialog).

In addition, a range of resources were searched or browsed to identify guidelines on the treatment of depression. The bibliographies of relevant reviews and guidelines and included studies were checked for further potentially relevant studies.

Records were managed within an EndNote library, version X3 (Thomson Reuters, CA, USA). After de-duplication, 9112 records in total were identified.

The full search strategies and results for each database can be found in *Appendix 1*.

Inclusion and exclusion criteria

Two reviewers independently examined titles and abstracts for relevance; all potentially relevant papers meeting the inclusion criteria were ordered. All full papers were then independently screened by two reviewers, with disagreements resolved by consensus.

Population

Studies of participants who have received treatment for depression were included. Studies establishing a diagnosis using a gold-standard structured interview for DSM or ICD criteria, such as the Structure Clinical Interview for DSM Disorders (SCID)[43] were included, as were studies defining depression on the basis of a score above a cut-off point on a recognised psychometric measure or on the basis of unaided clinical diagnosis. The decision problem is concerned with the prevention of relapse or recurrence in patients who have received and responded to treatment. Consequently, studies of patients who were treated for an acute episode and then subsequently measured for relapse or recurrence were excluded; studies where patients had 'recovered' from their acute episode (responding to treatment or asymptomatic) and the aim was to prevent subsequent relapse or recurrence were included. Studies of participants with bipolar disorder were excluded, as were studies of children.

Interventions

For part A (systematic review of efficacy), all evaluations of 'low-intensity' interventions as defined by the IAPT programme[22,23] were considered relevant. Specifically, this incorporated any unsupported psychological/psychosocial interventions or any supported interventions that did not involve highly qualified mental health professionals. 'Highly qualified professionals' includes clinicians, who, in most instances, will have a core professional qualification (e.g. psychiatrist, clinical psychologist, mental health nurse) and have received formal, specialist training in the delivery of complex psychological interventions (e.g. 16+ session CBT, psychodynamic psychotherapy, systematic therapy, etc.).

Any interventions involving support from para-professionals, peer supporters, PWPs, physical trainers, case managers (as in collaborative care models) or no personal support at all (e.g. entirely computerised interventions) were included. 'Para-professionals' includes people who do not have a core professional qualification and do not have specialist training in complex psychological interventions, although may have some training in less complex interventions. Inclusion was not restricted by length of treatment, number of sessions or mode of delivery.

For part B (scoping review), all relevant evaluations of interventions involving qualified mental health professionals (e.g. clinician, CBT therapist) were included if they involved < 6 hours of contact per patient. For group treatment, contact estimates per patient were calculated by dividing treatment duration by the mean number of patients per group (with adjustments as necessary if there is > 1 therapist). Where the amount of contact time was unclear, study authors were contacted to obtain additional details. If authors could not be contacted or did not respond, clinical experts (ML, DM) were consulted as to whether or not the intervention was likely to be brief (i.e. < 6 hours per patient).

High-intensity psychological interventions requiring ongoing interaction with a mental health professional (e.g. CBT, behavioural activation, problem-solving therapy and couples therapy) were excluded. Studies evaluating interventions for the acute phase of treatment of an acute episode of depression were also excluded.

Studies evaluating pharmacotherapy alone [including TCAs, SSRIs, serotonin–norepinephrine reuptake inhibitors (SNRIs), anxiolytic medication, mood stabilisers and others] were excluded from the review of clinical effectiveness, as were studies of alternative and complementary treatment methods.

Comparators

Study inclusion was not restricted by type of comparator treatment and could include no treatment (including waiting list control), placebo, psychological or pharmacological interventions.

Outcomes

Studies reporting outcomes related to relapse or recurrence (e.g. relapse rate, time to relapse, and severity of relapse episode) after initial treatment success were included. Other relevant outcomes such as social function and quality-of-life (QoL) measures were recorded where reported.

Study designs

Randomised, quasi-randomised and non-randomised studies with concurrent control patients were considered for inclusion. Animal models, preclinical and biological studies, reviews, editorials and opinions were excluded.

Translations of non-English-language papers and additional details of studies published only as meeting abstracts were obtained where time and budget constraints allowed.

Data extraction strategy

Data were extracted independently by one reviewer using a standardised data extraction form and checked by another. Discrepancies were resolved by discussion, with involvement of a third reviewer when necessary. Authors were contacted for any missing data or for clarification where necessary. Data from multiple publications of the same study were extracted as a single study. Extraction included data on patient characteristics, interventions, comparators, study design and outcomes.

Critical appraisal strategy

The quality appraisal checklist for quantitative intervention studies described in NICE's guide to methods for developing guidance in public health was obtained for assessing the internal and external validity of studies included in the systematic review of low-intensity interventions (part A).[44] For the scoping review of brief therapy interventions (part B), formal critical appraisal of the included studies was not planned or conducted, with the exception of one study,[45] in which the necessity of health professionals to deliver the intervention was unclear (see *Assessment of effectiveness*, *Part B: brief therapy interventions for the prevention of relapse of depression*, below).

Methods of data synthesis

Given the limited number of included studies and their clinical and methodological heterogeneity, a meta-analysis was not appropriate. Therefore, extracted data have been tabulated and discussed in a narrative synthesis.

Results of review of clinical effectiveness

Quantity and quality of research available

A total of 9112 unique records were identified from the searches and 129 articles were ordered for assessment. *Figure 2* shows the flow of records through the review process, and the numbers included and excluded at each stage. Details of studies excluded at the full publication stage are presented in *Appendix 2* (excluded studies).

Part A: low-intensity interventions for the prevention of relapse of depression

No studies met the main part A inclusion criteria for 'low-intensity' interventions that were delivered by para-professionals, peer supporters or PWPs as defined by the IAPT programme, without any restriction on length of treatment.

Part B: brief therapy interventions for the prevention of relapse of depression

Seventeen studies, reported in 27 publications, met the part B inclusion criteria for brief therapy interventions delivered by mental health professionals involving < 6 hours of contact per patient.[45–71] Fourteen of the studies were completed and published;[45–68] three are ongoing.[69–71]

Table 1 provides details of the related publications for each of the included studies. In the following sections, reference will be made to the primary study only; the other linked

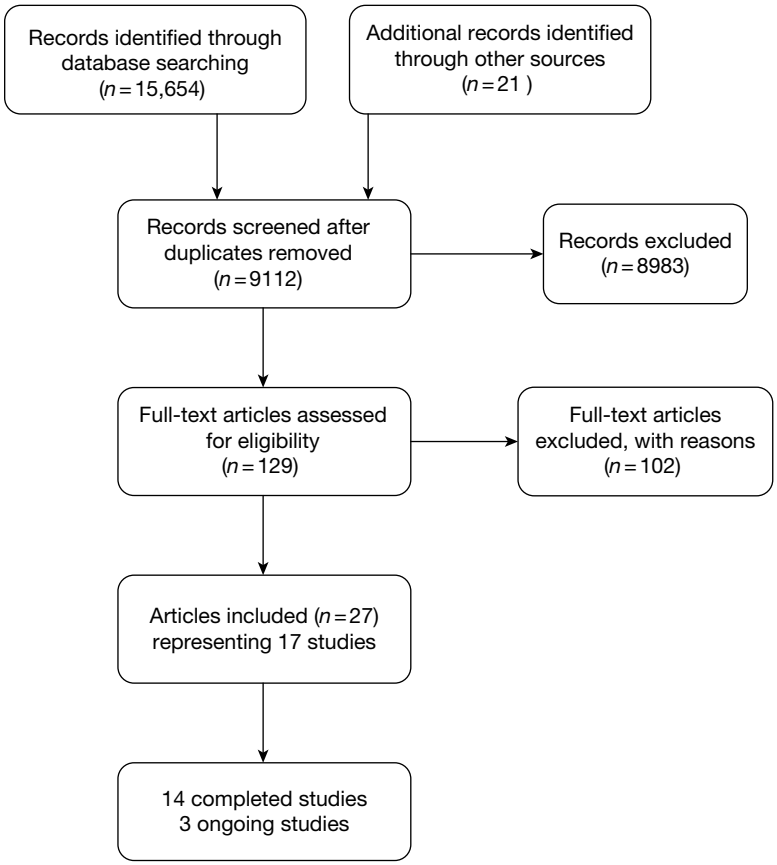

FIGURE 2 Study selection process for clinical effectiveness.

TABLE 1 Primary and linked publications for included studies

Primary publication	Linked publications
Completed studies	
Bockting 2005[46]	Bockting 2004,[47] 2006,[48] 2008,[49] 2009[50]
Bondolfi 2010[51]	None
Fava 1998[52]	Fava 2004[52]
Godfrin 2010[54]	None
Hepburn 2009[55]	None
Howell 2008[56]	None
Katon 2001[45]	Lin 2003,[57] Ludman 2003,[59] Ludman 2000,[58] Simon 2002[60]
Kuhner 1996[61]	Kuhner 1994[62]
Kuyken 2008[63]	None
Ma 2004[64]	None
Rohde 2008[65]	None
Takanashi 2002[66]	None
Teasdale 2000[67]	None
Wilkinson 2009[68]	None
Ongoing studies	
Kuyken 2010[69]	None
Watkins 2010[70]	None
Williams 2010[71]	None

publications provided additional information or results that are included in the data extraction tables (see *Appendix 3*).

Completed studies

Of the 14 completed studies,[45–68] 12 were parallel-group RCTs;[45,46,51,52,54–56,63–65,67,68] the remaining two studies[61,66] were non-randomised with concurrent control patients. Eight of the RCTs recruited participants from multiple centres,[45,46,51,56,63,65,68,72] one of which used cluster randomisation.[56]

Ongoing studies

All three ongoing studies are RCTs.[69–71]

Assessment of effectiveness

Part A: low-intensity interventions for the prevention of relapse of depression

No studies evaluating 'low-intensity' interventions that could be delivered by para-professionals, peer supporters, or PWPs as defined by the IAPT programme were identified.

Part B: brief therapy interventions for the prevention of relapse of depression

The following section provides a classification and description of studies identified which were identified as meeting the 'part B' inclusion criteria (i.e. they evaluated brief therapy interventions in which participants had up to 6 hours' contact with mental health professionals, such as clinicians or CBT therapists). As these studies fall outside the primary focus of this review, they are briefly described in an overview below, with key study characteristics presented in *Appendix 3*. In one study (Katon *et al.*[45]), the intervention could potentially be delivered by PWPs or equivalent practitioners, although in the retrieved evaluations it was delivered by

mental health professionals. Given the potential relevance of this study to our part A question, it is discussed in greater detail below, and has been assessed for internal and external validity (see *Appendix 4*).

Completed studies

Ten of the completed studies evaluated interventions delivered in a group setting.[46,51,54,55,61,63,64,66–68] Of these, six specifically evaluated some form of MBCT.[51,54,55,63,64,67] Three MBCT studies were based on an identical protocol that involved eight weekly sessions of 2 hours' duration, in which up to 12 participants met with experienced cognitive therapists to receive a programme based on the principles of CBT and mindfulness-based stress reduction.[51,64,67] Participants in this programme attended two further meetings during the subsequent 52 weeks of follow-up. Other MBCT programmes were of a similar duration (typically 2 hours to 2 hours and 45 minutes, weekly for 8 weeks), although with larger groups of up to 15 or 17 participants.[54,55,63] Three studies[46,66,68] evaluated brief group CBT of a similar intensity to the MBCT interventions, but without any explicit mindfulness content. The one remaining group-based intervention was a brief 12-week 'Coping with Depression' (CWD) course, which was based on a multimodal psychoeducational approach, delivered by clinical psychologists and psychiatrists.[61]

Four studies evaluated brief therapy interventions delivered by mental health professionals to participants on an individual basis.[45,52,56,65] One such intervention[51] provided individuals with a brief CBT-based intervention (30 minutes every other week for 20 weeks) alongside ongoing pharmacotherapy. A second intervention[56] incorporated a multimodal skills-based approach, providing support materials and general practitioner (GP) training to allow tailoring of evidence-based psychosocial strategies to individual patients in Australian primary care ('Keeping The Blues Away'); this is a small pilot study for which it may be that the intervention could potentially be delivered by PWPs or equivalent but it is unclear from the detail provided what level of training is required. One study[65] evaluated the effects of 'continuation CBT' (around 6 hours per patient) following initial CBT treatment in adolescents with depression. Another study[45] evaluated a 'multifaceted relapse prevention programme' for patients who were at high risk of relapse, which is described in more detail below.

Eight of the 14 studies formally established the occurrence of relapse or recurrence using gold standard criteria, specifically *Diagnostic and Statistical Manual of Mental Disorders* – Third Edition-Revised (DSM-III-R) or DSM-IV criteria.[45,46,51,54,61,63,64,67] Of these, seven explicitly stated that they established this outcome using SCID.[45,46,51,54,63,64,67] Elsewhere, relapse was established using other criteria [Research Diagnostic Criteria (RDC)][52] or a variety of self-report and clinician-administered symptom scales [Beck Depression Inventory (BDI),[55,66] Montgomery–Åsberg Depression Rating Scale (MADRS),[68] Clinical Global Impression Improvement scale (CGI-I),[65] Depression Anxiety Stress Scales (DASS)[56]].

The results of this diverse group of interventions in terms of preventing relapse or recurrence of depression are mixed. Even among MBCT studies following the same protocol, findings were inconsistent: two studies[64,67] reported a statistically significant benefit for MBCT over treatment as usual (TAU) in patients with three or more previous episodes of depression at 14 months, but a third trial restricting inclusion to this subgroup of patients reported no overall difference in relapse between treatment groups over the same period.[51] Other studies reported results that clearly favoured MBCT over TAU[54] were of borderline significance[63] or showed no difference between groups.[55] One study[68] suggested no significant benefit of brief CBT over TAU for preventing relapse, whereas another suggested any such benefit was restricted to participants with at least five previous depressive episodes.[46] One observational study did not report relapse rates and found no significant difference in scores 1 year after the intervention.[66] One study reported a

statistically significant benefit of a multimodal psychoeducational approach over no intervention in terms of relapse prevention over 6 months, although this small observational study had several methodological limitations.[61]

The study evaluating a brief CBT-based intervention (alongside ongoing pharmacotherapy[51]) reported a statistically significant impact on relapse after 2 years, an effect that remained at 6 years' follow-up. Relapse rates were similar for the 'Keeping The Blues Away' programme and usual care in Australian primary care.[56] The study of 'continuation CBT' in adolescents reported significant benefits of the intervention alone over both antidepressant medication treatment and combined continuation CBT/medication.[65]

Katon et al.

Five articles reported the findings of just one study (Katon *et al.*).[45,57–60] Although the practitioners in this study were predominantly mental health professionals, and therefore did not strictly meet our part A inclusion criteria, it was unclear whether or not delivery by a mental health professional was mandatory for the implementation of the intervention. Therefore, this study was critically appraised and is summarised in further detail below.

This study was a RCT that evaluated the effectiveness of a 'multifaceted relapse prevention programme' in a US primary care setting (see *Appendix 3*).[45] This programme was provided to adult patients who had recovered from depression but who were at high risk of relapse and were encouraged to continue with antidepressant medication. The relapse prevention programme included aspects of patient education/self-help (patients were provided with a book and videotape developed by the trial investigators) alongside ongoing support from 'depression specialists'. Each participant was scheduled two face-to-face sessions with a depression specialist (an initial 90-minute session and a 60-minute follow-up session), which were followed by three 'telephone visits' scheduled at 1, 4 and 8.5 months after the second face-to-face session. In addition, participants received 'personalised mailings' (at 2, 6, 10 and 12 months), containing a graph of participant BDI score over time and checklists on symptoms and medication adherence. The depression specialist alerted the primary care physician if the participant appeared to be symptomatic or had discontinued medication, based on data from participant feedback or from a monthly review of automated pharmacy data on antidepressant refills. Each depression specialist met with a supervising psychiatrist for 15–30 minutes each week to review cases and adjust treatment recommendations.

The focus of the relapse prevention intervention appeared to be largely on maintaining adherence to antidepressant medication. Meetings between patients and intervention 'depression specialists' integrated cognitive–behavioural and motivational interviewing approaches and provided information on the prevalence, course and efficacious treatment of depression. The depression specialist explained why each patient was at high risk of relapse, while acknowledging the individual's attitudes, beliefs and treatment choices. Depression specialists and patients discussed evidence illustrating the efficacy of pharmacotherapy for preventing relapse and recurrence, the perceived risks and benefits of long-term pharmacotherapy, approaches to manage specific medication side-effects and concerns of the patient. In addition, the depression specialist attempted to improve self-efficacy for preventing relapse and recurrence of depression through self-management behaviours such as monitoring depressive symptoms and scheduling pleasant activities.

In this trial, three different depression specialists were provided for 194 patients receiving the relapse prevention intervention programme. One depression specialist was a psychologist, one was a nurse practitioner with a master's degree in psychosocial nursing and the third was a

social worker. Each of these had received a 60-page training manual and attended two half-day training sessions with a psychiatrist, a psychologist and a primary care physician before the start of the trial.

A total of 191 participants in the comparison group received 'usual care', which typically consisted of prescription for antidepressant medication (as in the intervention group), plus between two and four visits with a family physician over the first 6 months of treatment, with the option to refer to health maintenance organisation (HMO)-provided mental health services.

Relapse/recurrence was defined as either a current episode of depression according to the SCID (at 3, 6, 9 or 12 months) or incidence of an episode within each 3-month period according to the Longitudinal Interval Follow-up Evaluation.[73] Other outcomes included depressive symptoms [measured by the 20-item Hopkins Symptom Checklist (SCL-20)], medication adherence, and number of primary care visits for reasons other than depression.

The authors reported significantly greater adherence to antidepressant medication in the relapse prevention intervention group than the usual-care group (adjusted odds ratio 1.91, 95% CI 1.37 to 2.65; $p < 0.001$). Depressive symptoms (as measured by the SCL-20) improved in both groups over time, with a small but significant greater reduction for the intervention group ($p = 0.04$). However, the rates of relapse/recurrence for the intervention and usual-care groups (35% vs 34.6%) are almost identical, suggesting that the intervention did not prevent relapse relative to usual care over 12 months' follow-up. The authors suggested that a more intensive programme might be needed to reduce relapse rates.

The internal and external validity of this study were assessed using the quality appraisal checklist for quantitative intervention studies described in NICE's guide to methods for developing guidance in public health (see *Appendix 4*).[44] This appeared to be a reasonably well-conducted RCT, although with some important limitations. Given the nature of the interventions, blinding of participants and clinicians was not possible, although the authors did not state whether or not the outcome assessors were blinded to allocation (which may have led to bias). Other concerns raised by the assessment were the lack of a power calculation and the methods use to adjust findings to account for missing data. However, given other strengths of the study, the reported lack of benefit for the relapse-prevention programme is unlikely to be due to a type II error (i.e. a 'false-negative' finding), but is likely to be a reasonably valid finding for the studied population. However, as with any such study comparing an intervention against 'usual care', it is difficult to separate benefits of the treatment programme per se from benefits of the attendant increase in support, engagement and monitoring that the intervention involves. In terms of external validity, the study population was drawn from four primary care clinics of one HMO in western Washington, USA. Participants were predominantly female, white, college educated and in paid employment. The findings of this study may not therefore be directly generalisable to more socially or ethnically diverse populations or to a UK primary care setting.

Ongoing studies

Three of the identified studies are ongoing RCTs.[69–71] Two of these studies are evaluating MBCT approaches,[69,71] one alongside cognitive psychoeducation without any mindfulness content.[71] The third trial is evaluating the impact of cognitive training self-help in addition to TAU.[70] The available details of these studies are presented in *Appendix 3*.

Chapter 4

Assessment of cost-effectiveness evidence

Methods for reviewing cost-effectiveness

The purpose of this review was to examine the existing cost-effectiveness literature on low-intensity psychological interventions for the secondary prevention of relapse after depression in detail, with the aim of identifying important structural assumptions, highlighting key areas of uncertainty and outlining the potential issues of generalising the results of the existing body of work. This review was used to identify the central issues associated with adapting existing work to address the specific research question posed and, if the evidence allowed, to assist in the development of a de novo economic model drawing on the issues identified in the clinical effectiveness and cost-effectiveness review.

Search strategy

The literature search strategy for the identification of cost-effectiveness studies was developed from the base search strategy used for the clinical effectiveness searches (see *Chapter 3*, *Search strategy*). Economic terms were added to the strategy to limit retrieval to economic studies. The additional economic terms were from the search strategy used for identifying studies for the NHS Economic Evaluations Database (NHS EED).

The following databases were searched in October 2011:

- MEDLINE (via OvidSP)
- EMBASE (via OvidSP)
- EconLit (via OvidSP)
- The Cochrane Library (via Wiley)
  - CENTRAL (Cochrane Central Register of Controlled Trials)
  - NHS EED
- IDEAS [via Research Papers in Economics (RePEc)].

After de-duplication in EndNote X3, 466 records were identified. The full search strategies and results for each database can be found in *Appendix 1*.

Inclusion and exclusion criteria

Two reviewers independently examined titles and abstracts for relevance; all potentially relevant papers meeting the inclusion criteria were ordered. All full papers were then independently screened by two reviewers, with disagreements resolved by consensus.

In addition to the criteria used to screen for the clinical papers (see *Chapter 3*, *Data extraction strategy*) a set of cost-effectiveness criteria were also applied to screen for the papers on cost-effectiveness. Only full economic evaluations that compared two or more treatment options and considered both costs and consequences (including cost-effectiveness, cost–utility and cost–benefit analyses) were included in the review of economic literature. Economic evaluations conducted alongside trials, modelling studies and analyses of administrative databases were all considered for inclusion. As with the clinical review, the review of cost-effectiveness evidence was also conducted in two parts: A and B (see *Chapter 2*, *Overall aims and objectives*).

Critical appraisal strategy

The quality of the cost-effectiveness studies was assessed according to a checklist updated from that developed by Drummond and Jefferson.[74] This information is summarised within the text of the report, alongside a detailed critique of included studies and the relevance to the NHS.

Methods of data synthesis

Drawing on the findings from the systematic reviews of both clinical effectiveness and cost-effectiveness, the intention was to develop a de novo economic model to assess the cost-effectiveness of low-intensity interventions to prevent relapse in patients with depression, and to further use this economic model to estimate the expected value of perfect information (EVPI) in order to help determine future research priorities in this area. However, given the lack of any studies meeting the main part A inclusion criteria in either the clinical effectiveness or cost-effectiveness review, the development of a de novo model was not considered feasible. Instead, through our review of the existing literature we have highlighted key issues that we think should be addressed as part of any future modelling work in this area.

Results of review of cost-effectiveness

Quantity and quality of research available

A total of 466 unique records were identified from the searches and 23 articles were ordered for assessment. *Figure 3* shows the flow of records through the review process and the numbers included and excluded at each stage.

Part A: low-intensity interventions for the prevention of relapse of depression

No papers met the main part A inclusion criteria for 'low-intensity' interventions that were delivered by para-professionals, peer supporters or PWPs as defined by the IAPT programme, without any restriction on length of treatment.

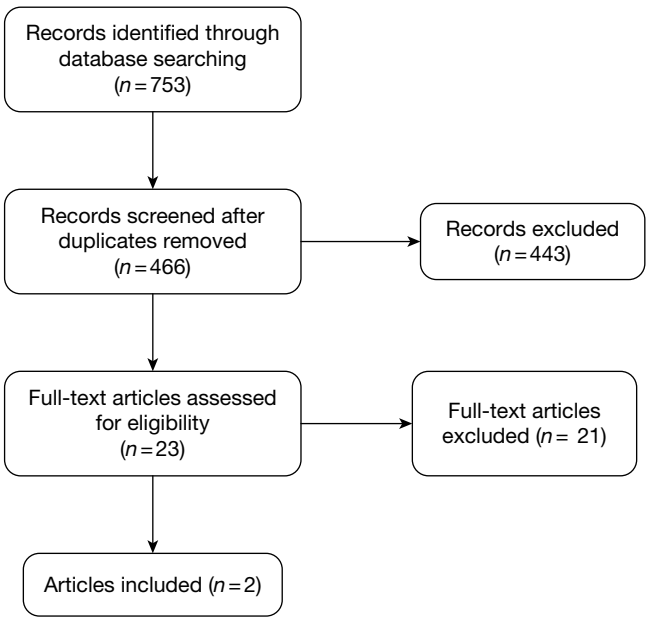

FIGURE 3 Study selection process for cost-effectiveness.

Part B: brief therapy interventions for the prevention of relapse of depression

Two papers met the part B inclusion criteria for brief therapy interventions delivered by mental health professionals involving < 6 hours of contact per patient. One of these papers, by Simon *et al.*,[75] is the economic evaluation based on the Katon *et al.*[45] study discussed in detail in *Chapter 3* (see *Assessment of effectiveness*). The other paper, by Kuyken *et al.*,[63] is a cost-effectiveness analysis of a trial of MBCT in a UK primary care setting.

Assessment of cost-effectiveness

The following sections provide a detailed critique of the cost-effectiveness evidence from the included studies and an assessment of the quality and relevance of the data from the perspective of the NHS. A quality assessment checklist is provided in *Appendix 5*.

Part A: low-intensity interventions for the prevention of relapse of depression

No studies evaluating 'low-intensity' interventions that could be delivered by para-professionals, peer supporters or PWPs, as defined by the IAPT programme, were identified.

Part B: brief therapy interventions for the prevention of relapse of depression

Two papers were identified as potentially meeting the 'part B' inclusion criteria (i.e. they evaluated brief therapy interventions in which participants had up to 6 hours of contact with mental health professionals, such as clinicians or CBT therapists). These two papers are critically appraised and are summarised in further detail below.

Review of Simon et al.

Overview This study is an economic evaluation based on the Katon *et al.*[45] study discussed in the clinical review (see *Chapter 3*, *Assessment of effectiveness*, above, and *Appendix 3*). The study is a trial-based evaluation of the cost-effectiveness of a multifaceted low-intensity relapse prevention programme (patient education, two visits with a depression specialist, telephone monitoring and follow-up) in addition to usual care (antidepressant medication and visits to a physician) compared with usual care alone for the prevention of relapse in patients with either long-term depression or a history of recent depression. The economic evaluation had a 12-month time horizon and was conducted from a strict health insurer perspective. Costs were expressed in 1997–8 US dollars (USDs). No discounting was applied to either costs or effects, given the short time horizon used. The primary outcome measure was the incremental cost per depression-free day, with a secondary outcome of the incremental cost per quality-adjusted life-year (QALY).

Summary of effectiveness data Effectiveness was measured by means of a SCL-20 score assessed at baseline, 3, 6, 9 and 12 months. Days with SCL depression scores of ≤ 0.5 were considered depression free. Days with SCL depression scores of ≥ 2.0 were considered fully symptomatic. Days with intermediate severity scores were assigned a value between depression free and fully symptomatic by linear interpolation, between the two cut-off points (0.5 and 2.0 on the SCL-20). Depression severity data from the consecutive outcome assessments were used to estimate depression severity for each day during the intervals between assessments, again using linear interpolation. Using this approach, the number of depression-free days was calculated as the sum of the depression-free proportion of each day in the study period. This was achieved by computing the area under the interpolated line joining the five measured points. The mean number of depression-free days during the 12-month period was 253.2 (95% CI 241.7 to 264.7 depression-free days) in the relapse prevention group and 239.4 (95% CI 227.3 to 251.4 depression-free days) in the usual-care group. After adjusting for patient age, sex, baseline SCL depression score and chronic disease score, the incremental number of depression-free days in

the relapse prevention group was calculated as 13.9 (95% CI –1.5 to 29.3 depression-free days); this difference was not statistically significant at the 5% significance level. CIs for depression-free days were estimated by bootstrap resampling with 1000 draws using bias correction. The difference in health-related quality of life (HRQoL) between fully symptomatic depression and fully recovered was reported as being between 0.2 [derived from intermediate health status measures, such as the European Quality of Life-5 Dimensions (EQ-5D[76])] and 0.4 (derived from direct assessment methods, such as the standard gamble or time trade-off techniques[77]). These values were used in conjunction with the incremental cost per depression-free day to calculate incremental costs per QALY.

Summary of resource utilisation and cost data The resource use and costs evaluated included the direct costs of the intervention itself, as well as other health service utilisation directly related to depression treatment over the 12-month period. Health plan computerised data were used to identify all of the health services provided or paid for by the HMO during the 12 months after randomisation. These costs were split across the 15 different components captured by the HMO's accounting system. The costs of intervention visits were estimated based on costs of similar services provided by the HMO. Costs of other intervention services were estimated using actual input costs. Estimated direct costs of the intervention programme were $256 (95% CI $249 to $264). The costs of antidepressant prescriptions were approximately $100 higher for the participants in the relapse prevention programme than for those receiving usual care, but these were offset by the costs of the other speciality mental health care, which were approximately $100 lower for those on the relapse prevention programme. Adjusted mean total costs were estimated to be $273 (95% CI $102 to $418) higher in the relapse prevention programme than the usual-care arm (details of the adjustments made were not provided). CIs around these cost values were estimated by bootstrap resampling with 1000 draws using bias correction.

Summary of cost-effectiveness data The cost per additional depression-free day was reported as $24 (95% CI –$59 to $496). This was used to estimate the cost per QALY gained as $21,650 per QALY using an increment of 0.4 as the difference in HRQoL of depression-free year over a fully symptomatic year and as $43,800 per QALY using a QALY increment of 0.2. No attempt at characterising the uncertainty around these estimates of incremental costs per QALY was reported. The cost-effectiveness analysis was based on a 12-month time horizon over which the intervention appeared to be marginally more costly and marginally (although not statistically significantly at the 5% significance level) more effective than usual care.

Discussion The quality assessment highlighted several important issues that potentially limit the generalisability of the findings from this study to UK clinical practice. Key issues influencing the internal and external validity of these findings are discussed below, together with a more general discussion of the potential difficulties of generalising from the results of this study to inform UK practice.

Internal validity The cost-effectiveness analysis did not directly address relapse prevention as suggested by the title; rather it assessed differences in levels of depressive symptoms between the two treatment options. Linear interpolation was used extensively in the calculation of the intermediate outcome measure, number of depression-free days, with the result being based on the five assessments. The point assessments themselves were calculated by interpolating SCL scores; this assumed a linear relationship between SCL scores and the proportion of the day that can be classed as depression free. Limited sensitivity analysis was reported to have been conducted on the conversion rates between SCL scores and depression-free days, but the results of this analysis were not reported. The analysis used complete case analysis rather than intention to treat (ITT) and missing data were not balanced across trial arms. The results

indicated that the dropout rate was lower in the intervention arm than in the control arm, suggesting possible bias. Uncertainty around the cost per depression-free day was reported as a CI. This is potentially misleading and ambiguous, especially as in this case negative values were reported, which can reflect a treatment either being dominated (it is more costly and less effective than its comparator) or dominating (it is less costly and more effective than its comparator).[77] No substantial attempt was made in the study to quantify the HRQoL differences between the treatments. Furthermore, no formal method was used to derive the QALY calculations or assess the uncertainty around them.

External validity The cost-effectiveness analysis was conducted in the USA and costs were measured from a strict health insurer perspective, omitting any out-of-service costs not covered by the patient's health plan. Unit costs and resource-usage levels were reported for only a subset of the total costs. We updated these estimates to current UK values by converting the 1997–8 USD results to UK prices using purchasing power parity (PPP) exchange rates for that year and then inflating the costs to 2009–10 UK prices using health-care-specific inflation indices.[78–79] This gives a cost per depression-free day of £24 (95% CI –£59 to £493) and cost per QALY estimates of £21,511 and £43,519 based on the two HRQoL impacts of depression from the paper (0.4 and 0.2, respectively). However, there are significant differences in the way the US and UK health-care systems are structured, resulting in different models of care, as well as widely differing health-care costs.[80] In addition, the dated nature of the cost data and the various limitations noted previously makes generalising the results to the UK difficult.

Commentary The cost-effectiveness analysis had a short-term time horizon looking at cost-effectiveness over a 12-month period in a group of patients with a high risk of relapse. The main outcome measure was the number of depression-free days, a measure not directly related to relapse. The effectiveness results were highly uncertain, and it was not clear from the results that the intervention was either clinically effective or cost-effective compared with usual care. The evaluation did not attempt to measure the HRQoL scores of the different depression states observed; instead it informally assigns a QALY value to the value of depression-free days. Uncertainty around the cost-effectiveness estimates was not adequately addressed and where sensitivity analyses had been conducted the results of these were not presented. The evaluation was conducted from a health insurer's perspective in a US primary care setting and did not detail the breakdown of the costs incurred. The combination of the issues identified made it difficult to generalise these results to a NHS setting.

Review of Kuyken et al.

Overview This trial based cost-effectiveness analysis compared MBCT with maintenance antidepressant medication (m-ADM) in depressive relapse prevention for patients with recurrent depression. The evaluation took a societal perspective and had a 15-month time horizon. No discounting was applied to either costs or effects. The primary outcome of the cost-effectiveness analysis was the incremental cost per relapse prevented with a secondary outcome of the incremental cost per depression-free day. The analysis was based on a RCT conducted within a primary care setting in England. Patients were followed up at 3-month intervals over the 15-month time horizon of the evaluation. Patients in the MBCT arm of the trial took part in 8-weekly (2-hour) MBCT group sessions and were supported in tapering and discontinuing their antidepressant medication (ADM).

Summary of effectiveness data Clinical effectiveness was measured in terms of time to relapse/recurrence using the depression module of the Structured Clinical Interview for DSM-IV to assess retrospectively the 3-month period between assessments. Relapse/recurrence was defined as an episode meeting the DSM-IV criteria for major depressive disorder. Cox regression was used to compare the relative reduction in hazard of relapse/recurrence of MBCT compared with

m-ADM. The results indicated that there was borderline evidence of MBCT having a greater hazard reduction effect: ITT analysis gave a hazard ratio of 0.63 (95% CI 0.39 to 1.04).

Summary of resource utilisation and cost data A societal perspective was taken in measuring costs and resource usage. All hospital (inpatient, outpatient, emergency department), community health, social services and productivity losses resulting from time off work owing to illness were accounted for. Economic data were collected at baseline and then in 3-month intervals up to 15-months post randomisation using the Adult Service Use Schedule (AD-SUS), an instrument also used in other studies of adult mental health populations. All unit costs were for the financial year 2005–6 and no discounting was applied. National UK unit costs were applied where appropriate and productivity losses were calculated using the human capital approach.[80] Costs were converted to 2006 international dollars (Int$) using World Bank PPP indices. The mean per-person cost for MBCT over the 15 months was higher than that for m-ADM by Int$427 (95% CI –Int$853 to Int$1705), but this difference in costs was not statistically significant.

Summary of cost-effectiveness data Cost-effectiveness estimates of Int$962 per relapse/recurrence prevented and Int$50 per depression-free day were reported. Uncertainty around the cost-effectiveness of the intervention, based on willingness to pay per relapse prevented, was characterised in the form of a cost-effectiveness acceptability curve (CEAC).

Discussion The quality assessment highlighted important issues that potentially limit the generalisability of the findings from this study to UK clinical practice. Key issues influencing the internal and external validity of these findings are discussed below, together with a more general discussion of the potential difficulties of generalising from the results of this study to inform UK practice.

Internal validity The cost-effectiveness analysis did not detail the data and methods used to calculate the estimates of the two cost-effectiveness outcome measures reported. Details of the data and methods used to characterise the uncertainty around these estimates were also omitted. Given the lack of detail it was difficult to assess how appropriate these cost-effectiveness estimates were.

External validity The cost-effectiveness analysis did not attempt to measure utility. Cost-effectiveness estimates were instead reported using the measures of incremental cost per relapse prevented, and incremental cost per depression-free day. The use of disease-specific measures for cost-effectiveness made it difficult to generalise the results and compare them with other health-care interventions. We updated these estimates to current UK values by converting the 2005–6 USD results to UK prices using PPP exchange rates for that year and then inflating the costs to 2009–10 UK prices using health-care-specific inflation indices.[78–79] This gives a cost of £680 per relapse/recurrence prevented and £35 per depression-free day. The societal perspective taken for the analysis is also not in keeping with standard UK practice, which recommends limiting the perspective to the NHS and Personal Social Services (PSS) only.[81]

Commentary It is unclear whether or not MBCT was more cost-effective than m-ADM in terms of preventing depression relapse. Similarly, all the results presented were highly uncertain. Methods and data used in conducting the analysis were not reported, making it difficult to judge the appropriateness of the results. The evaluation was conducted in the UK and measures all of the relevant costs from a societal perspective; however, its use of disease-specific measures in reporting cost-effectiveness made it difficult to generalise the results.

Chapter 5

Discussion

Statement of principal findings

Clinical effectiveness

Although there is a substantial volume of literature on the effectiveness of low-intensity,[38,82,83] high-intensity[84–86] and mixed-intensity[31,87,88] psychological treatments for the initial treatment of depression, this review has shown that there is currently very little intervention research specifically focused on the effectiveness of low-intensity interventions for relapse prevention.

No studies met the main review inclusion criteria (part A); a total of 17 completed and ongoing studies evaluating brief (≤ 6 hours of contact per patient) high-intensity therapy interventions (e.g. therapist-delivered continuation CBT, group MBCT) were identified and described (part B). These studies were clinically and methodologically diverse, and reported differing degrees of efficacy for the evaluated interventions. Of these, one study[45] was felt to be of particular potential relevance to the main focus of the project, if the intervention could be delivered by PWP or equivalent practitioners. This was a RCT that evaluated a collaborative care-type programme which was specifically aimed at prevention of depressive relapse in high-risk patients in a US primary care setting. This study, which involved providing patients with face-to-face, telephone and postal contact with trained 'depression specialists', reported no difference between patients receiving the intervention and those receiving usual care in terms of relapse of depression over 12 months.

Cost-effectiveness

In the review of cost-effectiveness evidence, no studies met the main review inclusion criteria (part A); two studies that met the criteria for brief interventions (part B) were identified.[63,75] One of these was an economic evaluation of the same study identified as being potentially relevant to the main focus of the project in the clinical effectiveness review. This study demonstrated that the low-intensity intervention evaluated (providing patients with face-to-face, telephone and postal contact with trained 'depression specialists' in addition to usual care) may be a cost-effective use of NHS resources when compared with usual care.[75] However, the reported incremental cost-effectiveness ratios (ICERs) when converted into sterling and inflated to 2010 prices of £21,511 per QALY to £43,519 per QALY ranged from borderline cost-effective to not cost-effective under accepted thresholds for cost-effectiveness.[81] It was also unclear how valid these estimates were for the NHS. The other study (regarding the use of MBCT to prevent relapse) was inconclusive; furthermore, its use of disease-specific measures in reporting cost-effectiveness made it difficult to generalise the results.[63]

Strengths and limitations

Clinical effectiveness

This is currently the only systematic review of the literature on the effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression. This review involved a comprehensive search for relevant evidence; over 9000 records identified from searches of

electronic databases, online resources, clinical guidelines and other sources were independently screened by two or more reviewers, with primary study authors contacted where necessary.

The effectiveness of high-intensity interventions for the prevention of relapse or recurrence in depression have been reviewed elsewhere.[29,89] However, given the dearth of evidence on the effectiveness of low-intensity interventions, this review also incorporated a scoping exercise covering evaluations of brief high-intensity therapies for the prevention of relapse or recurrence typically delivered by clinical psychologists, CBT therapists, and other qualified mental health professionals. Inclusion was restricted to interventions involving limited patient contact time (delivered in a group setting or involving very brief individual encounters), as these approaches may be of interest to decision-makers who are concerned with improving access to psychological therapies and/or maximising available resources. Although any definition of 'brief' is likely to be somewhat arbitrary, an inclusion threshold of 6 hours of contact per patient was used to select these brief high-intensity intervention studies. The majority of studies excluded on this basis evaluated clearly resource-intensive interventions, although occasionally studies with similar treatment protocols to those included in the scoping review had to be excluded on the basis of having only slightly more than 6 hours of contact per patient (e.g. Fava *et al.*[90,91]). A full list of excluded studies with reasons for exclusion is available in *Appendix 2*.

Cost-effectiveness

The review of cost-effectiveness evidence found minimal evidence supporting the use of low-intensity interventions for the prevention of relapse or recurrence in depression, with the one study that could potentially be relevant to the main focus of the project (administered by PWPs or equivalent practitioners) suggesting that the evaluated intervention may have been borderline cost-effective, although the results were highly uncertain and their validity to the NHS is questionable.[75] It should also be noted that the study compared its intervention in addition to usual care with usual care alone; other systematic reviews have considered other interventions for the prevention of relapse or recurrence.[29,89] The review has made it apparent that there are many low-intensity interventions, such as CCBT, which have not been evaluated for the prevention of relapse or recurrence in depression.

Both studies identified as relevant for part B had relatively short time horizons (12 and 15 months)[63,75] and, given the chronic nature of depression, it is unclear if these time horizons would capture all the possible differences in costs and effects between the treatment arms, as would be considered good practice in economic evaluation.[77] The cost-effectiveness studies also made no attempt to explore any heterogeneity in terms of patient characteristics, with no subgroup analyses conducted in either study.

Uncertainties

Given the lack of relevant evidence identified, many uncertainties remain. The existing evidence does not provide a robust evaluation of the clinical effectiveness or cost-effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression. Further research is needed to address this issue.

This review only considered evaluations of interventions preventing the relapse or recurrence of depression; evaluations typically focus on specific stages of an illness, for example, with depression, the initial treatment of a depressive episode or, as in this case, the prevention of relapse or recurrence. Such an approach may ignore important factors, for example possible interactions between treatment for the initial episode and subsequent treatment for relapse prevention. Instead a more comprehensive approach could be taken, with the whole-patient

pathway being considered: optimising the use of particular interventions within a broader range of alternatives considering the entire treatment pathway of patients.

Below, specific issues relevant to the evaluation of relapse and recurrence prevention are discussed in detail; such issues would also need to be considered in any wider evaluation of whole-patient pathways as well.

Definition of low-intensity interventions

There are likely to be a range of alternative low-intensity interventions that could be feasible in the NHS. In the 2010 NICE guideline[92] on depression three forms of low-intensity intervention were distinguished: CCBT, guided self-help and physical activity programmes. However, this list is not exhaustive and other interventions could be described as low intensity; for example, the intervention described in Katon *et al.*[45] could conceivably be delivered by para-professionals or PWPs and therefore be classed as low intensity. The same point could be made about a number of other interventions, some of which are currently classified as high intensity. It is not clear what level of training is required to adequately deliver such interventions effectively. Similarly, group work (as found in most of the interventions identified in part B studies) is 'high-intensity' in the sense that it is typically delivered by a mental health professional, although delivering interventions in a group setting could potentially provide more efficient use of resources and increased throughput. The further evaluation of such group interventions may be of use. There are also likely to be pragmatic considerations that need to be taken into account when deciding on which low-intensity interventions should be evaluated; for example, some interventions may be more feasible for widespread introduction in the NHS than others.

Relevant comparators

It is important to consider carefully what the relevant comparators should be in any future evaluation. 'Psychological placebo' or sham psychological treatments may have limited use in the evaluation of psychological treatments. One of the factors that a placebo condition should control for is patient expectancy, which may in part be related to a practitioner's expectancy of whether or not a treatment is likely to be effective. There are obvious difficulties in ensuring that a practitioner is unaware of whether a psychological intervention is designed to be a genuine intervention or a control condition. It is also possible that the patient will be able to discern whether or not an intervention is intended to be therapeutic. Therefore, TAU may be an appropriate comparator; however, studies must report what participants in the TAU group actually received, including medication (NICE recommends that patients receive maintenance antidepressant therapy), any additional psychosocial support and previous treatments (e.g. medication and/or IAPT interventions).

There are many other interventions, including both high-intensity psychological interventions and pharmacological therapies, which are used to prevent relapse or recurrence of depression.[93] However, there may be constraints which limit the relevance of particular interventions as comparators; for example, there may be a limited number of qualified health-care professionals so more intensive psychological interventions are not feasible or long-term antidepressant use may not be acceptable for patients. Many studies examining the use of psychotherapy for the treatment of depression involve psychotherapy provided in addition to usual care by a GP, which will often include an antidepressant.[93] Similarly, collaborative care and case management strategies have also been used in the treatment of depression, and have been found to be cost-effective in the treatment of depressive episodes.[93] This suggests that any future evaluation should also consider relevant combinations of interventions/therapies as comparators.

Furthermore, it may be appropriate to consider evaluating the whole treatment pathway for a patient, to incorporate any possible treatment interactions. Treatment interactions may

exist between combinations of interventions or between interventions received for the initial depressive episode and subsequent interventions. Such interactions may alter the patient population, which will be at risk of relapse in the future. Evaluating interventions separately without recourse to this may result in contradictory results. Adopting a more comprehensive evaluative approach to the whole-patient pathway being considered would allow the use of particular interventions to be optimised within a broader range of alternatives considering the entire treatment pathway of patients.

Outcomes

Any future evaluation also needs to consider carefully which outcomes are of importance when evaluating interventions preventing relapse or recurrence in depression. Clearly, relapse or recurrence is a key outcome; however, QoL measures, such as depression-free days, etc., are also important but were rarely measured in the identified studies. Good practice in cost-effectiveness analysis demands the use of generic (non-disease-specific) outcome measures so as to allow decisions on resource allocation across disease areas, not simply within them.[77] In the UK, the recommended outcome measure is the QALY, which takes into account both quantity of life and HRQoL.[81] Although depression has been shown to affect mortality,[94] it also has a major impact on QoL; it is therefore important to consider by what process an intervention may affect QoL.

Previous economic models that have considered the treatment of depression have often modelled patients as either in a depressive episode or not, with no in-between and no consideration of severity.[82,95] However, depression is not a dichotomous disorder and instead there is a scale of severity, such that individuals considered to be in remission may at times have depressive symptoms that affect their HRQoL, and those individuals who are considered to be depressed may be so to varying severities (see *Chapter 1*, *Diagnosis*, for details on different categories of depression). The study by Simon *et al.*[75] identified in the review of cost-effectiveness, described itself as addressing depression relapse; however, the primary measure of effectiveness used is the number of depression-free days, not the prevention of relapse, and even depression-free days are measured as continuous rather than dichotomous, with intermediate severity scores being treated as between depression free and fully symptomatic. Although prevention of relapse is clearly an important factor in the effectiveness of treatment, and something that needs to be included in any future evaluation, there may be other effects of treatment that cannot be captured by focusing solely on relapse prevention. For example, it may be important to capture the effects of treatment on HRQoL during periods of remission or depressive episodes, as well as the impact on risk of relapse or recurrence.

Heterogeneity of patients

As we have shown, there is currently minimal evidence to support the use of low-intensity psychological interventions for the prevention of relapse or recurrence. However, this patient group is not homogeneous, and within this group there are many sources of explorable heterogeneity that could be considered. Therefore, before any future evaluation it is important to consider which subgroups should be examined.

Risk of relapse within depression is heavily dependent on the number of previous episodes; for example, it has been reported that risk of relapse is 50% among patients having experienced one episode of major depression, rising to 70% among patients who have experienced two episodes and 90% among patients who have experienced three episodes.[14] Previous models examining treatments for depression have taken account of the number of previous depressive episodes.[95] Any future evaluation needs to take account of the differing baseline risk of relapse by number of previous episodes, as this will impact on the benefits of treatment. Similarly, it may also be worth examining if treatment effects differ by number of previous episodes.

As discussed previously, depression is not a dichotomous disorder and patients experiencing depressive episodes may suffer from different severities of the condition, with the associated differences in HRQoL. If the severity of prior depressive episodes is associated with the future severity of depression following relapse, then it may also be appropriate to consider this as a source of identifiable heterogeneity.

Comorbidity is also likely to be important in considering response to treatment and risk of relapse. For example, comorbid anxiety and depression are particularly common[96] and are associated with poorer compliance with, and response to, treatment.[97]

Another possible source of heterogeneity is the treatment received for the previous depressive episode (or episodes). Both low- and high-intensity psychological interventions are widely used in the treatment of depressive episodes; however, not all patients receive the same intervention, or a psychological intervention at all, with many patients receiving only pharmacological therapy.[98] It could be expected that there would be treatment interactions between the therapy received for the initial depressive episode and that received to prevent relapse or recurrence; for example, psychological therapies for depressive episodes have been found to have a relapse-preventative effect beyond the end of treatment,[29] and, as such, this should be considered in any future evaluation. As discussed previously, this supports focusing on the whole-patient pathway rather than a selected part of it.

Societal costs

In the UK, guidelines for the economic evaluation of health-care technologies recommend that the perspective taken on costs should be that of the NHS and PSS; in exceptional circumstances when a substantial proportion of the costs fall outside of the NHS and PSS, costs to other government bodies may be considered as well when they are not reflected in HRQoL measures.[81] However, there is a large literature showing the substantial wider societal costs of depression; for example, one study[99] found the annual cost of depression to England was over £9B, of which only £370M was in direct treatment costs. Key to whether or not these costs should be considered in an economic evaluation is whether or not the estimates of HRQoL capture the financial impact on the patient (and possibly any carer). If they do then capturing this impact in costs as well as in the HRQoL measure will result in double counting. Although many have argued that the measure of HRQoL should not capture the financial impact,[100] the EQ-5D, the preferred measure within the UK,[81] includes in its description of health states the ability to perform a 'usual social role', which will include participation in the labour market and its financial implications.

Any future evaluation also needs to consider what health-care resource should be collected to enable comparison between interventions. Although the inclusion of resources related directly to the treatment of depression is evident, depression has also been shown to increase the use of other health-care resources by patients even after controlling for comorbidities.[101] Good practice in economic evaluation involves including any differences between treatments in terms of resource use; therefore, a broad view of health-care resource use should be considered.[77]

Chapter 6

Conclusions

There is inadequate evidence to determine the clinical effectiveness or cost-effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression, either unsupported psychological interventions or the type of supported interventions that might be delivered by PWPs (as defined by IAPT) or by similar para-professionals.

A scoping review of interventions using a broader definition of brief high-intensity therapies indicates that some approaches (e.g. MBCT in a group setting) have shown promise in some studies, but findings have not been consistent.

Careful consideration should be given to the scope of future research to inform this issue; it is important to evaluate the broader patient pathway accounting for the entire treatment pathway and consider the wide range of heterogeneous patient groups within those patients in remission or who have recovered from a depressive episode.

Suggested research priorities

Given the lack of relevant evidence identified, many uncertainties remain. The existing evidence does not provide a robust evaluation of the clinical effectiveness or cost-effectiveness of low-intensity interventions for the prevention of relapse or recurrence of depression. Further research is needed to address this issue.

For many individuals, depression must be seen as a relapsing or recurrent condition that requires long-term management to minimise the impact on people's QoL. Approaches to the evaluation of low-intensity therapies and other interventions for depression should therefore consider the management of an individual episode within the broader context of managing the entire course of the condition. Future research should also consider a number of key issues relevant to the evaluation of relapse and recurrence prevention, such as defining the interventions and comparators, outcomes and populations of interest. It is also important that any research question is set in the context of the entire patient pathway accounting, where possible, for the impact of important factors such as initial treatment alternatives and patient characteristics. Treatment interactions may exist between combinations of interventions or between interventions received for the initial depressive episode and subsequent interventions. Adopting a more comprehensive evaluative approach to the whole-patient pathway being considered will allow the use of particular interventions to be optimised within a broader range of alternatives considering the entire treatment pathway of patients.

The definition of low-intensity is unclear and there is likely to be a number of alternative interventions that could be feasible, including unsupported interventions, interventions delivered by those without formal health-care qualifications, or group work (as found in most of the interventions identified in part B studies) delivered by a mental health professional, but potentially providing more efficient use of resources and increased throughput. Some interventions may be more feasible for widespread introduction in the NHS than others. In defining the intervention it is important to provide clarity on the type of practitioner providing

the training, including their training and supervision; this will help clarify the extent to which interventions can be considered as low intensity and inform cost-effectiveness evaluations.

It is important to consider carefully what the relevant comparators should be in any future evaluation. There are numerous interventions, including both high-intensity psychological interventions and pharmacological therapies or a combination of interventions, which are used to prevent relapse or recurrence of depression, but any constraints that limit the relevance of interventions will need to be considered, for example the availability of clinicians or the acceptability of long-term medication. TAU may be an appropriate comparator but it is important to detail precisely what this entails.

Relapse or recurrence is a key outcome; however, QoL measures, such as depression-free days, etc., are also important. Other effects, such as the effects of treatment on HRQoL during periods of remission or depressive episodes, should also be considered.

The patient group is not homogeneous and consideration should be given to which subgroups are important in terms of both the clinical effectiveness and cost-effectiveness of low-intensity psychological interventions for the secondary prevention of relapse after depression. Significant factors include the severity of depression, comorbidities and the number of previous episodes. Future evaluations should take account of the differing baseline risk of relapse, and it may also be worth examining if relative treatment effects differ by the number of previous episodes. Patients experiencing depressive episodes may suffer from different severities of the condition, with the associated differences in HRQoL; if the severity of prior depressive episodes is associated with the future severity of depression following relapse then this should be accounted for.

Recent clinical guidelines published by the Scottish Intercollegiate Guidelines Network (SIGN) suggest that MBCT in a group setting may be considered as a treatment option to reduce relapse in patients with depression who have had three or more episodes.[102] This recommendation was based on a systematic review performed in 2007.[103] The current scoping review identified three further RCTs of group-based MBCT which were not included in the 2007 review, two[69,71] of which are UK-based and currently ongoing. An updated systematic review of group-based MBCT on completion of these trials may be of value. Any such systematic review should investigate any potential impact of the duration and intensity of the intervention on the relapse and recurrence of depression.

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Contribution of authors

Mark Rodgers was responsible for study selection, data extraction, validity assessment, data analysis and writing the report.

Miqdad Asaria and Simon Walker were responsible for the review of cost-effectiveness evidence and contributed to writing the report.

Dean McMillan and Mike Lucock provided clinical advice throughout the project and commented on drafts of the report.

Melissa Harden devised the search strategy, carried out the literature searches, maintained the library of references and wrote the search methodology sections of the report.

Stephen Palmer contributed to all aspects of the economic sections.

Alison Eastwood contributed to all aspects of the clinical effectiveness sections and has overall responsibility for the project.

All authors contributed to, and commented on, the report.

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Appendix 1

Literature search strategies

Clinical effectiveness

MEDLINE

OvidSP http://ovidsp.ovid.com/

1950 to week 4 August 2010.

Searched on 6 September 2010.

2455 records were retrieved.

1. Beating the Blues.ti,ab. (11)
2. Depression Relief.ti,ab. (5)
3. Overcoming Depression.ti,ab. (9)
4. (BluePages or Blue Pages).ti,ab. (5)
5. (MoodGYM or Mood GYM).ti,ab. (15)
6. Keeping the Blues Away.ti,ab. (1)
7. Sadness Program.ti,ab. (0)
8. Stressbusters.ti,ab. (2)
9. Think feel do.ti,ab. (0)
10. Wellbeing Program.ti,ab. (3)
11. Living Life to the Full.ti,ab. (3)
12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (49)
13. exp Depressive Disorder/ (66,517)
14. Depression/ (57,156)
15. (depression or depressive or depressed).ti,ab. (224,153)
16. (melancholi$ or dysphori$ or dysthymi$).ti,ab. (6848)
17. 13 or 14 or 15 or 16 (259,354)
18. Recurrence/ (136,231)
19. (recur$ or reoccur$ or re occur$ or relaps$).ti,ab. (376,377)
20. Secondary Prevention/ (499)
21. (secondary adj3 prevent$).ti,ab. (12,026)
22. (prophylaxis or prophylactic$).ti,ab. (96,242)
23. Remission Induction/ (25,968)
24. (remission or remitted).ti,ab. (67,244)
25. (maintain$ adj3 (health or wellbeing or well being)).ti,ab. (2704)
26. ((another or further or second or repeat$ or previous or initial or subsequent) adj4 (episode$ or bout$ or instance$ or symptom$ or occurrence$) adj4 depress$).ti,ab. (967)
27. 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 (584,508)
28. 17 and 27 (16,144)
29. Cognitive Therapy/ (10,799)
30. exp Behavior Therapy/ (41,600)
31. (cognitive adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or group$)).ti,ab. (11,263)

32. (behavio?r$ adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or activat$ or modif$ or group$)).ti,ab. (31,770)
33. CBT.ti,ab. (2696)
34. cognitive restructuring.ti,ab. (404)
35. (cCBT or iCBT).ti,ab. (93)
36. Telemedicine/ (7621)
37. Therapy, Computer-Assisted/ (3887)
38. Computer-Assisted Instruction/ (7483)
39. (telepsychology or teletherapy or telemedicine or telehealth).ti,ab. (6043)
40. (Interactive Voice Response or IVR).ti,ab. (507)
41. 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 (87,903)
42. 41 and 28 (998)
43. counseling/or directive counseling/ (24,264)
44. counsel$.ti,ab. (51,434)
45. (motivation$ adj2 (interview$ or enhance$ or intervention$ or therap$)).ti,ab. (1728)
46. (cybercounsel$ or cyber counsel$).ti,ab. (2)
47. 43 or 44 or 45 or 46 (64,489)
48. 47 and 28 (191)
49. mindfulness.ti,ab. (594)
50. 49 and 28 (41)
51. exp Self Care/ (31,830)
52. Self-Help Groups/ (6870)
53. (selfcare or self care).ti,ab. (7272)
54. (selfmanage$ or self manage$).ti,ab. (4803)
55. (selfmonitor$ or self monitor$).ti,ab. (3133)
56. (selfhelp or self help).ti,ab. (3641)
57. (selftreat$ or self treat$).ti,ab. (911)
58. (selfadminister$ or self administer$).ti,ab. (16,624)
59. Bibliotherapy/ (277)
60. Manuals as Topic/ (3199)
61. Books/ (1941)
62. bibliotherap$.ti,ab. (208)
63. ((patient$ or client$ or user$) adj3 (manual$ or handbook$ or workbook$ or guide$)).ti,ab. (8770)
64. 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 (75,989)
65. 64 and 28 (278)
66. exp Exercise/ (52,567)
67. exp Exercise Therapy/ (21,709)
68. exp Exercise Movement Techniques/ (3903)
69. exp Sports/ (86,678)
70. (exercise$ or workout$ or work out$ or physical$activ$).ti,ab. (180,715)
71. ((resistance or strength$ or weight) adj training).ti,ab. (4258)
72. (walk$ adj3 (fitness or aerobic or program$ or intervention$ or session$ or regime$)).ti,ab. (1120)
73. (bicycl$ or cycle$ or cycling).ti,ab. (321,463)
74. (run$ or jog$ or treadmill$).ti,ab. (105,892)
75. (tai ji or taiji or taijiquan or tai chi or t ai chi or taichi or shadow boxing).ti,ab. (498)
76. (yoga or yogic or pilates or danc$).ti,ab. (3789)
77. 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 (642,671)
78. 77 and 28 (1028)
79. Patient Education as Topic/ (59,612)
80. (psychoeducation$ or psycho education$).ti,ab. (2157)

81. 79 or 80 (61,166)
82. 81 and 28 (254)
83. Allied Health Personnel/ (9265)
84. Case Management/ (6903)
85. ((psychological or personal) adj (wellbeing practitioner$ or well being practitioner$)).ti,ab. (0)
86. (para professional$ or paraprofessional$).ti,ab. (700)
87. peer support$.ti,ab. (901)
88. ((patient$ or client$) adj2 support group$).ti,ab. (257)
89. mental health peer$.ti,ab. (4)
90. graduate mental health worker$.ti,ab. (9)
91. low intensity worker$.ti,ab. (0)
92. health care assistant$.ti,ab. (133)
93. (case adj (worker$ or management)).ti,ab. (5798)
94. stepped care.ti,ab. (515)
95. (collaborative adj (care or management)).ti,ab. (600)
96. 83 or 84 or 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 (22,348)
97. 96 and 28 (70)
98. (low intensity adj5 (psychological or psychosocial)).ti,ab. (12)
99. Increasing Access to Psychological Therap$.ti,ab. (1)
100. Improving Access to Psychological Therap$.ti,ab. (5)
101. IAPT.ti,ab. (6)
102. 98 or 99 or 100 or 101 (22)
103. 12 or 42 or 48 or 50 or 65 or 78 or 82 or 97 or 102 (2540)
104. Animals/ (4,635,961)
105. Humans/ (11,394,975)
106. 104 not (104 and 105) (3,440,150)
107. 103 not 106 (2484)
108. letter.pt. (688,191)
109. editorial.pt. (261,694)
110. comment.pt. (418,836)
111. 108 or 109 or 110 (1,019,325)
112. 107 not 111 (2455)

Key

- / = indexing term (MeSH heading)
- exp = exploded MeSH heading
- $ = truncation
- ? = embedded truncation
- pt = publication type
- .ti,ab. = terms in either title or abstract fields
- adj = terms adjacent to each other (same order)
- adj2 = terms within two words of each other (any order).

MEDLINE In-Process & Other Non-Indexed Citations

OvidSP http://ovidsp.ovid.com/

3 September 2010.

Searched on 6 September 2010.

107 records were retrieved.

1. Beating the Blues.ti,ab. (1)
2. Depression Relief.ti,ab. (0)
3. Overcoming Depression.ti,ab. (0)
4. (BluePages or Blue Pages).ti,ab. (0)
5. (MoodGYM or Mood GYM).ti,ab. (2)
6. Keeping the Blues Away.ti,ab. (0)
7. Sadness Program.ti,ab. (0)
8. Stressbusters.ti,ab. (0)
9. Think feel do.ti,ab. (0)
10. Wellbeing Program.ti,ab. (0)
11. Living Life to the Full.ti,ab. (0)
12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (2)
13. exp Depressive Disorder/ (0)
14. Depression/ (0)
15. (depression or depressive or depressed).ti,ab. (7827)
16. (melancholi$ or dysphori$ or dysthymi$).ti,ab. (204)
17. 13 or 14 or 15 or 16 (7908)
18. Recurrence/ (3)
19. (recur$ or reoccur$ or re occur$ or relaps$).ti,ab. (13,341)
20. Secondary Prevention/ (1)
21. (secondary adj3 prevent$).ti,ab. (495)
22. (prophylaxis or prophylactic$).ti,ab. (2953)
23. Remission Induction/ (0)
24. (remission or remitted).ti,ab. (1770)
25. (maintain$ adj3 (health or wellbeing or well being)).ti,ab. (148)
26. ((another or further or second or repeat$ or previous or initial or subsequent) adj4 (episode$ or bout$ or instance$ or symptom$ or occurrence$) adj4 depress$).ti,ab. (49)
27. 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 (17,891)
28. 17 and 27 (572)
29. Cognitive Therapy/ (0)
30. exp Behavior Therapy/ (0)
31. (cognitive adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or group$)).ti,ab. (729)
32. (behavio?r$ adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or activat$ or modif$ or group$)).ti,ab. (1558)
33. CBT.ti,ab. (228)
34. cognitive restructuring.ti,ab. (25)
35. (cCBT or iCBT).ti,ab. (11)
36. Telemedicine/ (1)
37. Therapy, Computer-Assisted/ (0)
38. Computer-Assisted Instruction/ (0)
39. (telepsychology or teletherapy or telemedicine or telehealth).ti,ab. (274)
40. (Interactive Voice Response or IVR).ti,ab. (115)
41. 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 (2291)
42. 41 and 28 (51)
43. counseling/or directive counseling/ (0)
44. counsel$.ti,ab. (1889)
45. (motivation$ adj2 (interview$ or enhance$ or intervention$ or therap$)).ti,ab. (133)
46. (cybercounsel$ or cyber counsel$).ti,ab. (0)
47. 43 or 44 or 45 or 46 (2003)
48. 47 and 28 (9)
49. mindfulness.ti,ab. (59)

50. 49 and 28 (9)
51. exp Self Care/ (0)
52. Self-Help Groups/ (0)
53. (selfcare or self care).ti,ab. (278)
54. (selfmanage$ or self manage$).ti,ab. (351)
55. (selfmonitor$ or self monitor$).ti,ab. (176)
56. (selfhelp or self help).ti,ab. (124)
57. (selftreat$ or self treat$).ti,ab. (35)
58. (selfadminister$ or self administer$).ti,ab. (648)
59. Bibliotherapy/ (0)
60. Manuals as Topic/ (0)
61. Books/ (0)
62. bibliotherap$.ti,ab. (9)
63. ((patient$ or client$ or user$) adj3 (manual$ or handbook$ or workbook$ or guide$)).ti,ab. (471)
64. 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 (1996)
65. 64 and 28 (13)
66. exp Exercise/ (2)
67. exp Exercise Therapy/ (0)
68. exp Exercise Movement Techniques/ (0)
69. exp Sports/ (0)
70. (exercise$ or workout$ or work out$ or physical$activ$).ti,ab. (7289)
71. ((resistance or strength$ or weight) adj training).ti,ab. (314)
72. (walk$ adj3 (fitness or aerobic or program$ or intervention$ or session$ or regime$)).ti,ab. (72)
73. (bicycl$ or cycle$ or cycling).ti,ab. (15,967)
74. (run$ or jog$ or treadmill$).ti,ab. (5926)
75. (tai ji or taiji or taijiquan or tai chi or t ai chi or taichi or shadow boxing).ti,ab. (36)
76. (yoga or yogic or pilates or danc$).ti,ab. (286)
77. 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 (28,416)
78. 77 and 28 (34)
79. Patient Education as Topic/ (1)
80. (psychoeducation$ or psycho education$).ti,ab. (113)
81. 79 or 80 (114)
82. 81 and 28 (6)
83. Allied Health Personnel/ (0)
84. Case Management/ (0)
85. ((psychological or personal) adj (wellbeing practitioner$ or well being practitioner$)).ti,ab. (0)
86. (para professional$ or paraprofessional$).ti,ab. (8)
87. peer support$.ti,ab. (64)
88. ((patient$ or client$) adj2 support group$).ti,ab. (15)
89. mental health peer$.ti,ab. (0)
90. graduate mental health worker$.ti,ab. (1)
91. low intensity worker$.ti,ab. (0)
92. health care assistant$.ti,ab. (5)
93. (case adj (worker$ or management)).ti,ab. (198)
94. stepped care.ti,ab. (18)
95. (collaborative adj (care or management)).ti,ab. (67)
96. 83 or 84 or 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 (373)
97. 96 and 28 (4)
98. (low intensity adj5 (psychological or psychosocial)).ti,ab. (1)

99. Increasing Access to Psychological Therap$.ti,ab. (1)
100. Improving Access to Psychological Therap$.ti,ab. (1)
101. IAPT.ti,ab. (3)
102. 98 or 99 or 100 or 101 (4)
103. 12 or 42 or 48 or 50 or 65 or 78 or 82 or 97 or 102 (110)
104. Animals/ (27)
105. Humans/ (134)
106. 104 not (104 and 105) (13)
107. 103 not 106 (110)
108. letter.pt. (15,007)
109. editorial.pt. (9160)
110. comment.pt. (23,331)
111. 108 or 109 or 110 (40,683)
112. 107 not 111 (107)

Key

- / = indexing term (MeSH heading)
- exp = exploded MeSH heading
- $ = truncation
- ? = embedded truncation
- pt = publication type
- .ti,ab. = terms in either title or abstract fields
- adj = terms adjacent to each other (same order)
- adj2 = terms within two words of each other (any order).

PsycINFO

OvidSP http://ovidsp.ovid.com/

1806 to week 5 August 2010.

Searched on 6 September 2010.

1891 records were retrieved.

1. Beating the Blues.ti,ab. (10)
2. Depression Relief.ti,ab. (8)
3. Overcoming Depression.ti,ab. (32)
4. (BluePages or Blue Pages).ti,ab. (2)
5. (MoodGYM or Mood GYM).ti,ab. (10)
6. Keeping the Blues Away.ti,ab. (0)
7. Sadness Program.ti,ab. (1)
8. Stressbusters.ti,ab. (1)
9. Think feel do.ti,ab. (3)
10. Wellbeing Program.ti,ab. (0)
11. Living Life to the Full.ti,ab. (2)
12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (67)
13. exp major depression/ (70,891)
14. “depression (emotion)”/ (19,720)
15. atypical depression/ (129)
16. seasonal affective disorder/ (810)
17. (depression or depressive or depressed).ti,ab. (160,866)
18. (melancholi$ or dysphori$ or dysthymi$).ti,ab. (9393)

19. 13 or 14 or 15 or 16 or 17 or 18 (168,930)
20. "relapse (disorders)"/ (4222)
21. relapse prevention/ (1519)
22. exp "remission (disorders)"/ (1959)
23. maintenance therapy/ (675)
24. (recur$ or reoccur$ or re occur$ or relaps$).ti,ab. (32,060)
25. (secondary adj3 prevent$).ti,ab. (1795)
26. (prophylaxis or prophylactic$).ti,ab. (3829)
27. (remission or remitted).ti,ab. (7924)
28. (maintain$ adj3 (health or wellbeing or well being)).ti,ab. (1054)
29. ((another or further or second or repeat$ or previous or initial or subsequent) adj4 (episode$ or bout$ or instance$ or symptom$ or occurrence$) adj4 depress$).ti,ab. (1115)
30. 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 (46,330)
31. 19 and 30 (12,129)
32. exp cognitive techniques/ (12,609)
33. exp cognitive behavior therapy/ (6703)
34. exp behavior modification/ (34,126)
35. (cognitive adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or group$)).ti,ab. (21,958)
36. (behavio?r$ adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or activat$ or modif$ or group$)).ti,ab. (49,995)
37. CBT.ti,ab. (4577)
38. cognitive restructuring.ti,ab. (1576)
39. computer assisted therapy/ (234)
40. computer assisted instruction/ (10,048)
41. online therapy/ (623)
42. telemedicine/ (1260)
43. (telehealth or telemedicine or teletherapy or telepsychology).ti,ab. (840)
44. Interactive Voice Response.ti,ab. (139)
45. IVR.ti,ab. (115)
46. (cCBT or iCBT).ti,ab. (59)
47. 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 (96,113)
48. 47 and 31 (1082)
49. exp counseling/ (57,787)
50. counsel$.ti,ab. (70,051)
51. (motivation$ adj2 (interview$ or enhance$ or intervention$ or therap$)).ti,ab. (2543)
52. (cybercounsel$ or cyber counsel$).ti,ab. (24)
53. 49 or 50 or 51 or 52 (100,086)
54. 53 and 31 (183)
55. mindfulness/ (1174)
56. mindfulness$.ti,ab. (1901)
57. 55 or 56 (1959)
58. 57 and 31 (101)
59. self care skills/ (2754)
60. exp self help techniques/ (6420)
61. (selfcare or self care).ti,ab. (3985)
62. (selfmanage$ or self manage$).ti,ab. (3625)
63. (selfmonitor$ or self monitor$).ti,ab. (3801)
64. (selfhelp or self help).ti,ab. (5425)
65. (selftreat$ or self treat$).ti,ab. (236)
66. (selfadminister$ or self administer$).ti,ab. (6963)
67. bibliotherapy/ (507)

68. exp books/ (3974)
69. reading materials/ (1454)
70. bibliotherap$.ti,ab. (714)
71. ((patient$ or client$ or user$) adj3 (manual$ or handbook$ or workbook$ or guide$)).ti,ab. (1782)
72. 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 (34,914)
73. 72 and 31 (145)
74. exp exercise/ (11,910)
75. movement therapy/ (505)
76. exp sports/ (11,533)
77. dance therapy/ (570)
78. (exercise$ or workout$ or work out$ or physical$activ$).ti,ab. (42,784)
79. ((resistance or strength$ or weight) adj training).ti,ab. (528)
80. (walk$ adj3 (fitness or aerobic or program$ or intervention$ or session$ or regime$)).ti,ab. (353)
81. (bicycl$ or cycle$ or cycling).ti,ab. (27,764)
82. (run$ or jog$ or treadmill$).ti,ab. (26,735)
83. (tai ji or taiji or taijiquan or tai chi or t ai chi or taichi or shadow boxing).ti,ab. (205)
84. (yoga or yogic or pilates or danc$).ti,ab. (5067)
85. 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 (109,028)
86. 85 and 31 (521)
87. psychoeducation/ (2414)
88. client education/ (2519)
89. (psychoeducation$ or psycho education$).ti,ab. (5693)
90. 87 or 88 or 89 (8441)
91. 90 and 31 (147)
92. allied health personnel/ (498)
93. paraprofessional personnel/ (1297)
94. case management/ (2140)
95. ((psychological or personal) adj (wellbeing practitioner$ or well being practitioner$)).ti,ab. (0)
96. (para professional$ or paraprofessional$).ti,ab. (1648)
97. peer support$.ti,ab. (1461)
98. ((patient$ or client$) adj2 support group$).ti,ab. (70)
99. mental health peer$.ti,ab. (9)
100. graduate mental health worker$.ti,ab. (6)
101. health care assistant$.ti,ab. (25)
102. low intensity worker$.ti,ab. (3)
103. (case adj (worker$ or management)).ti,ab. (3379)
104. stepped care.ti,ab. (248)
105. (collaborative adj (care or management)).ti,ab. (393)
106. 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 or 100 or 101 or 102 or 103 or 104 or 105 (9135)
107. 106 and 31 (49)
108. (low intensity adj5 (psychological or psychosocial)).ti,ab. (13)
109. Increasing Access to Psychological Therap$.ti,ab. (3)
110. Improving Access to Psychological Therap$.ti,ab. (15)
111. IAPT.ti,ab. (20)
112. 108 or 109 or 110 or 111 (38)
113. 12 or 48 or 54 or 58 or 73 or 86 or 91 or 107 or 112 (1955)
114. (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ti,ab,sh. (202,139)
115. 113 not 114 (1934)

116. (editorial or letter).dt. (27,226)
117. 115 not 116 (1901)
118. limit 117 to yr = "1950 -Current" (1891)

Key

- / = indexing term
- exp = exploded indexing term
- $ = truncation
- ? = embedded truncation
- dt. = document type
- .ti,ab. = terms in either title or abstract fields
- adj = terms adjacent to each other (same order)
- adj2 = terms within two words of each other (any order)
- sh = subject heading field.

EMBASE

OvidSP http://ovidsp.ovid.com/

1980 to week 38 2010.

Searched on 29 September 2010.

2905 records were retrieved.

1. Beating the Blues.ti,ab. (16)
2. Depression Relief.ti,ab. (8)
3. Overcoming Depression.ti,ab. (14)
4. (BluePages or Blue Pages).ti,ab. (7)
5. (MoodGYM or Mood GYM).ti,ab. (19)
6. Keeping the Blues Away.ti,ab. (1)
7. Sadness Program.ti,ab. (0)
8. Stressbusters.ti,ab. (2)
9. Think feel do.ti,ab. (1)
10. Wellbeing Program.ti,ab. (4)
11. Living Life to the Full.ti,ab. (3)
12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (67)
13. exp *depression/ (125,235)
14. (depression or depressive or depressed).ti,ab. (264,422)
15. (melancholi$ or dysphori$ or dysthymi$).ti,ab. (8650)
16. 13 or 14 or 15 (299,144)
17. *recurrent disease/ (5836)
18. *relapse/ (2425)
19. (recur$ or reoccur$ or re occur$ or relaps$).ti,ab. (450,289)
20. *secondary prevention/ (1035)
21. (secondary adj3 prevent$).ti,ab. (16,107)
22. *prophylaxis/ (4975)
23. (prophylaxis or prophylactic$).ti,ab. (117,902)
24. *remission/ (1457)
25. (remission or remitted).ti,ab. (79,158)
26. (maintain$ adj3 (health or wellbeing or well being)).ti,ab. (3160)
27. ((another or further or second or repeat$ or previous or initial or subsequent) adj4 (episode$ or bout$ or instance$ or symptom$ or occurrence$) adj4 depress$).ti,ab. (1183)

28. 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 (628,701)
29. 16 and 28 (19,094)
30. *cognitive therapy/ (7474)
31. *behavior therapy/ (13,293)
32. *behavior modification/ (1031)
33. (cognitive adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or group$)).ti,ab. (18,961)
34. (behavio?r$ adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or activat$ or modif$ or group$)).ti,ab. (48,358)
35. CBT.ti,ab. (4164)
36. cognitive restructuring.ti,ab. (677)
37. (cCBT or iCBT).ti,ab. (129)
38. exp *telehealth/ (7617)
39. *computer assisted therapy/ (1548)
40. (telepsychology or teletherapy or telemedicine or telehealth).ti,ab. (6906)
41. *interactive voice response system/ (39)
42. (Interactive Voice Response or IVR).ti,ab. (676)
43. 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 (77,933)
44. 43 and 29 (1110)
45. exp *counseling/ (22,273)
46. counsel$.ti,ab. (61,285)
47. (motivation$ adj2 (interview$ or enhance$ or intervention$ or therap$)).ti,ab. (2415)
48. (cybercounsel$ or cyber counsel$).ti,ab. (2)
49. 45 or 46 or 47 or 48 (73,648)
50. 49 and 29 (236)
51. mindfulness.ti,ab. (924)
52. 51 and 29 (68)
53. exp *self care/ (14,330)
54. (selfcare or self care).ti,ab. (8667)
55. (selfmanage$ or self manage$).ti,ab. (6339)
56. (selfmonitor$ or self monitor$).ti,ab. (4162)
57. (selfhelp or self help).ti,ab. (4653)
58. (selftreat$ or self treat$).ti,ab. (1176)
59. (selfadminister$ or self administer$).ti,ab. (19,015)
60. *book/ (3872)
61. bibliotherap$.ti,ab. (299)
62. ((patient$ or client$ or user$) adj3 (manual$ or handbook$ or workbook$ or guide$)).ti,ab. (11,170)
63. 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 (66,094)
64. 63 and 29 (268)
65. exp *exercise/ (71,270)
66. exp *sport/ (37,531)
67. exp *physical activity/ (53,097)
68. exp *kinesiotherapy/ (16,054)
69. *music therapy/ (2050)
70. *treadmill/or *treadmill exercise/ (2173)
71. (exercise$ or workout$ or work out$ or physical$activ$).ti,ab. (215,071)
72. ((resistance or strength$ or weight) adj training).ti,ab. (5135)
73. (walk$ adj3 (fitness or aerobic or program$ or intervention$ or session$ or regime$)).ti,ab. (1384)
74. (bicycl$ or cycle$ or cycling).ti,ab. (365,808)
75. (run$ or jog$ or treadmill$).ti,ab. (126,820)

76. (tai ji or taiji or taijiquan or tai chi or t ai chi or taichi or shadow boxing).ti,ab. (681)
77. (yoga or yogic or pilates or danc$).ti,ab. (5196)
78. 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 (739,132)
79. 78 and 29 (1264)
80. *psychoeducation/ (333)
81. *patient education/ (20,510)
82. (psychoeducation$ or psycho education$).ti,ab. (3197)
83. 80 or 81 or 82 (23,553)
84. 83 and 29 (255)
85. *paramedical personnel/ (5290)
86. *case management/or *case manager/ (3110)
87. *support group/ (508)
88. *peer group/ (2658)
89. ((psychological or personal) adj (wellbeing practitioner$ or well being practitioner$)).ti,ab. (0)
90. (para professional$ or paraprofessional$).ti,ab. (677)
91. peer support$.ti,ab. (1155)
92. ((patient$ or client$) adj2 support group$).ti,ab. (345)
93. mental health peer$.ti,ab. (6)
94. graduate mental health worker$.ti,ab. (14)
95. low intensity worker$.ti,ab. (1)
96. health care assistant$.ti,ab. (151)
97. (case adj (worker$ or management)).ti,ab. (6627)
98. stepped care.ti,ab. (631)
99. (collaborative adj (care or management)).ti,ab. (770)
100. 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 (20,104)
101. 100 and 29 (80)
102. (low intensity adj5 (psychological or psychosocial)).ti,ab. (12)
103. Increasing Access to Psychological Therap$.ti,ab. (3)
104. Improving Access to Psychological Therap$.ti,ab. (21)
105. IAPT.ti,ab. (21)
106. 102 or 103 or 104 or 105 (46)
107. 12 or 44 or 50 or 52 or 64 or 79 or 84 or 101 or 106 (2972)
108. editorial.pt. (355,119)
109. letter.pt. (702,108)
110. 108 or 109 (1,057,227)
111. 107 not 110 (2962)
112. exp animal/ (1,629,045)
113. exp nonhuman/ (3,502,467)
114. exp animal experiment/ (1,392,148)
115. (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ti,ab,sh. (3,938,570)
116. 112 or 113 or 114 or 115 (5,657,477)
117. exp human/ (11,999,569)
118. exp human experiment/ (282,161)
119. 117 or 118 (12,000,950)
120. 116 not (116 and 119) (4,482,506)
121. 111 not 120 (2905)

Key

- / = indexing term (EMTREE heading)
- * = focused EMTREE heading

- exp = exploded EMTREE heading
- $ = truncation
- ? = embedded truncation
- .ti,ab. = terms in either title or abstract fields
- adj = terms adjacent to each other (same order)
- adj2 = terms within two words of each other (any order)
- sh = subject heading field.

The Cochrane Library

Wiley http://onlinelibrary.wiley.com/

Cochrane Database of Systematic Reviews (CDSR), Issue 9, September 2010.

Database of Abstracts of Reviews of Effects (DARE), Issue 3, 2010.

Cochrane Central Register of Controlled Trials (CENTRAL), Issue 3, 2010.

Health Technology Assessment database (HTA), Issue 3, 2010.

Searched on 17 September 2010.

702 records were retrieved – 20 from CDSR, six from DARE, 674 from CENTRAL, two from HTA database.

#1 "Beating the Blues":ti,ab (4)
#2 "Depression Relief":ti,ab (2)
#3 "Overcoming Depression":ti,ab (6)
#4 ("BluePages" or "Blue Pages"):ti,ab (3)
#5 ("MoodGYM" or "Mood GYM"):ti,ab (9)
#6 "Keeping the Blues Away":ti,ab (1)
#7 "Sadness Program":ti,ab (0)
#8 "Stressbusters":ti,ab (0)
#9 "Think feel do":ti,ab (0)
#10 "Wellbeing Program":ti,ab (0)
#11 "Living Life to the Full":ti,ab (0)
#12 (#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11) (23)
#13 MeSH descriptor Depressive Disorder explode all trees (6039)
#14 MeSH descriptor Depression, this term only (3924)
#15 (depression or depressive or depressed):ti,ab (24,924)
#16 (melancholi* or dysphori* or dysthymi*):ti,ab (1130)
#17 (#13 OR #14 OR #15 OR #16) (26,859)
#18 MeSH descriptor Recurrence, this term only (10,144)
#19 (recur* or reoccur* or (re NEXT occur*) or relaps*):ti,ab (26,763)
#20 MeSH descriptor Secondary Prevention, this term only (39)
#21 (secondary NEAR/3 prevent*):ti,ab (1375)
#22 (prophylaxis or prophylactic*):ti,ab (16,307)
#23 MeSH descriptor Remission Induction, this term only (2326)
#24 (remission or remitted):ti,ab (7994)
#25 (maintain* NEAR/3 (health or wellbeing or (well NEXT being))):ti,ab (134)
#26 ((another or further or second or repeat* or previous or initial or subsequent) NEAR/4 (episode* or bout* or instance* or symptom* or occurrence*) NEAR/4 depress*):ti,ab (137)
#27 (#18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26) (52,009)

#28 (#17 AND #27) (2833)
#29 MeSH descriptor Cognitive Therapy, this term only (3139)
#30 MeSH descriptor Behavior Therapy explode all trees (7327)
#31 (cognitive NEAR/3 (therap* or treatment* or intervention* or program* or package* or training or group*)):ti,ab (5233)
#32 ((behavior* or behaviour*) NEAR/3 (therap* or treatment* or intervention* or program* or package* or training or activat* or modif* or group*)):ti,ab (7966)
#33 CBT:ti,ab (1147)
#34 (cognitive NEXT restructuring):ti,ab (208)
#35 (cCBT or iCBT):ti,ab (27)
#36 MeSH descriptor Telemedicine, this term only (595)
#37 MeSH descriptor Therapy, Computer-Assisted, this term only (418)
#38 MeSH descriptor Computer-Assisted Instruction, this term only (598)
#39 (telepsychology or teletherapy or telemedicine or telehealth):ti,ab (456)
#40 ("Interactive Voice Response" or IVR):ti,ab (104)
#41 (#29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40) (15,592)
#42 (#28 AND #41) (417)
#43 MeSH descriptor Counseling, this term only (2088)
#44 MeSH descriptor Directive Counseling, this term only (121)
#45 counsel*:ti,ab (4665)
#46 (motivation* NEAR/2 (interview* or enhance* or intervention* or therap*)):ti,ab (707)
#47 (cybercounsel* or (cyber NEXT counsel*)):ti,ab (0)
#48 (#43 OR #44 OR #45 OR #46 OR #47) (5885)
#49 (#28 AND #48) (51)
#50 mindfulness:ti,ab (178)
#51 (#28 AND #50) (26)
#52 MeSH descriptor Self Care explode all trees (2741)
#53 MeSH descriptor Self-Help Groups, this term only (458)
#54 (selfcare or (self NEXT care)):ti,ab (733)
#55 (selfmanage* or (self NEXT manage*) or selfmonitor* or (self NEXT monitor*)):ti,ab (1728)
#56 (selfhelp or (self NEXT help)):ti,ab (768)
#57 (selftreat* or (self NEXT treat*)):ti,ab (96)
#58 (selfadminister* or (self NEXT administer*)):ti,ab (1631)
#59 MeSH descriptor Bibliotherapy, this term only (66)
#60 MeSH descriptor Manuals as Topic, this term only (107)
#61 MeSH descriptor Books, this term only (25)
#62 bibliotherap*:ti,ab (103)
#63 ((patient* or client* or user*) NEAR/3 (manual* or handbook* or workbook* or guide*)):ti,ab (773)
#64 (#52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63) (7409)
#65 (#64 AND #28) (71)
#66 MeSH descriptor Exercise explode all trees (7313)
#67 MeSH descriptor Exercise Therapy explode all trees (4063)
#68 MeSH descriptor Exercise Movement Techniques explode all trees (725)
#69 MeSH descriptor Sports explode all trees (6128)
#70 (exercise* or workout* or (work NEXT out*) or (physical* NEXT activ*)):ti,ab (26,568)
#71 ((resistance or strength* or weight) NEAR training):ti,ab (2529)
#72 (walk* NEAR/3 (fitness or aerobic or program* or intervention* or session* or regime*)):ti,ab (445)

#73 (bicycl* or cycle* or cycling):ti,ab (15,471)
#74 (run* or jog* or treadmill*):ti,ab (9264)
#75 ((tai NEXT ji) or taiji or taijiquan or (tai NEXT chi) or (t NEXT ai NEXT chi) or taichi or (shadow NEXT boxing)):ti,ab (194)
#76 (yoga or yogic or pilates or danc*):ti,ab (444)
#77 (#66 OR #67 OR #68 OR #69 OR #70 OR #71 OR #72 OR #73 OR #74 OR #75 OR #76) (48,050)
#78 (#77 AND #28) (177)
#79 MeSH descriptor Patient Education as Topic, this term only (4958)
#80 (psychoeducation* or (psycho NEXT education*)):ti,ab (758)
#81 (#79 OR #80) (5513)
#82 (#81 AND #28) (78)
#83 MeSH descriptor Allied Health Personnel, this term only (131)
#84 MeSH descriptor Case Management, this term only (606)
#85 (psychological NEXT wellbeing NEXT practitioner*):ti,ab (0)
#86 (psychological NEXT (well NEXT being) NEXT practitioner*):ti,ab (0)
#87 (personal NEXT wellbeing NEXT practitioner*):ti,ab (0)
#88 (personal NEXT (well NEXT being) NEXT practitioner*):ti,ab (0)
#89 ((para NEXT professional*) or paraprofessional*):ti,ab (89)
#90 (peer NEXT support*):ti,ab (122)
#91 ((patient* or client*) NEAR/2 (support NEXT group*)):ti,ab (10)
#92 (mental NEXT health NEXT peer*):ti,ab (1)
#93 (graduate NEXT mental NEXT health NEXT worker*):ti,ab (1)
#94 (low NEXT intensity NEXT worker*):ti,ab (0)
#95 (health NEXT care NEXT assistant*):ti,ab (5)
#96 (case NEXT (worker* or management)):ti,ab (771)
#97 (stepped NEXT care):ti,ab (168)
#98 (collaborative NEXT (care or management)):ti,ab (153)
#99 (#83 OR #84 OR #85 OR #86 OR #87 OR #88 OR #89 OR #90 OR #91 OR #92 OR #93 OR #94 OR #95 OR #96 OR #97 OR #98) (1682)
#100 (#99 AND #28) (29)
#101 ((low NEXT intensity) NEAR/5 (psychological or psychosocial)):ti,ab (2)
#102 "Increasing Access to Psychological Therapy":ti,ab (0)
#103 "Increasing Access to Psychological Therapies":ti,ab (0)
#104 "Improving Access to Psychological Therapy":ti,ab (0)
#105 "Improving Access to Psychological Therapies":ti,ab (0)
#106 IAPT:ti,ab (0)
#107 (#101 OR #102 OR #103 OR #104 OR #105 OR #106) (2)
#108 (#12 OR #42 OR #49 OR #51 OR #65 OR #78 OR #82 OR #100 OR #107), from 1950 to 2010 (707)

Key

- MeSH descriptor = indexing term (MeSH heading)
- * = truncation
- " " = phrase search
- :ti,ab = terms in either title or abstract fields
- NEAR/2 = terms within two words of each other (any order)
- NEXT = terms are next to each other.

Science Citation Index (SCI), Social Science Citation Index (SSCI)

ISI Web of Knowledge www.isinet.com/

SSCI 1956–present, SCI 1899–present.

Searched on 16 September 2010.

3656 records were retrieved.

# 79	3656	#78 *Databases = SCI-EXPANDED, SSCI Timespan = 1945–2010*
# 78	3656	#76 NOT #77
# 77	> 100,000	TS = (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep)
# 76	3849	#75 OR #70 OR #57 OR #55 OR #46 OR #41 OR #36 OR #34 OR #11
# 75	81	#74 OR #73 OR #72 OR #71
# 74	50	TS = IAPT
# 73	8	TS = "Improving Access to Psychological Therap*"
# 72	2	TS = "Increasing Access to Psychological Therap*"
# 71	27	TS = ("low-intensity" SAME (psychological or psychosocial))
# 70	137	#69 AND #23
# 69	9222	#68 OR #67 OR #66 OR #65 OR #64 OR #63 OR #62 OR #61 OR #60 OR #59 OR #58
# 68	1014	TS = ("collaborative care" or "collaborative management")
# 67	425	TS = "stepped care"
# 66	5009	TS = ("case worker*" or "case management")
# 65	55	TS = "health care assistant*"
# 64	1	TS = "low-intensity worker*"
# 63	6	TS = "graduate mental health worker*"
# 62	4	TS = "mental health peer*"
# 61	742	TS = ((patient* or client*) SAME "support group*")
# 60	1060	TS = "peer support*"
# 59	1055	TS = ("para-professional*" or paraprofessional*)
# 58	0	TS = ("psychological well-being practitioner*" or "personal well-being practitioner*")
# 57	185	#56 AND #23
# 56	3303	TS = (psychoeducation* or "psycho-education*")
# 55	1140	#54 AND #23
# 54	> 100,000	#53 OR #52 OR #51 OR #50 OR #49 OR #48 OR #47
# 53	9365	TS = (yoga or yogic or pilates or danc*)
# 52	791	TS = ("tai-ji" or taiji or taijiquan or "tai-chi" or "t-ai-chi" or taichi or "shadow boxing")
# 51	> 100,000	TS = (run* or jog* or treadmill*)
# 50	> 100,000	TS = (bicycl* or cycle* or cycling)
# 49	3248	TS = (walk* SAME (fitness or aerobic or program* or intervention* or session* or regime*))
# 48	10,705	TS = ((resistance or strength* or weight) SAME training)
# 47	> 100,000	TS = (exercise* or workout* or "work-out*" or "physical* activ*")
# 46	518	#45 AND #23
# 45	79,054	#44 OR #43 OR #42
# 44	43,581	TS = ((patient* or client* or user*) SAME (manual* or handbook* or workbook* or guide*))
# 43	469	TS = bibliotherap*
# 42	35,847	TS = (selfcare or "self-care" or selfmanage* or "self-manage*" or selfmonitor* or "self-monitor*" or selfhelp or "self-help" or selftreat* or "self-treat*" or selfadminister* or "self-administer*")

# 41	232	#40 AND #23
# 40	61,995	#39 OR #38 OR #37
# 39	3	TS = (cybercounsel* or "cyber-counsel*")
# 38	4742	TS = (motivation* SAME (interview* or enhance* or intervention* or therap*))
# 37	57,750	TS = (counsel*)
# 36	111	#35 AND #23
# 35	1308	TS = mindfulness
# 34	2018	#33 AND #23
# 33	> 100,000	#32 OR #31 OR #30 OR #29 OR #28 OR #27 OR #26 OR #25 OR #24
# 32	1200	TS = ("Interactive Voice Response" or IVR)
# 31	6254	TS = (telepsychology or teletherapy or telemedicine or telehealth)
# 30	2742	TS = (("computer-assisted" or online) SAME (therap* or instruction*))
# 29	102	TS = (cCBT or iCBT)
# 28	542	TS = "cognitive restructuring"
# 27	122	TS = ("cognitive techniques")
# 26	3694	TS = CBT
# 25	> 100,000	TS = ((behavior* or behaviour*) SAME (therap* or treatment* or intervention* program* or package* or training or activat* or modif* or group*))
# 24	37,852	TS = (cognitive SAME (therap* or treatment* or intervention* or program* or package* or training or group*))
# 23	17,019	#22 AND #14
# 22	> 100,000	#21 OR #20 OR #19 OR #18 OR #17 OR #16 OR #15
# 21	2273	TS = ((second or repeat* or previous or initial or subsequent) SAME (episode* or bout* or instance* or symptom* or occurrence*) SAME (depress*))
# 20	6200	TS = ("maintenance therapy")
# 19	14,545	TS = (maintain* SAME (health or wellbeing or "well-being"))
# 18	52,360	TS = (remission or remitted)
# 17	86,889	TS = (prophylaxis or prophylactic*)
# 16	14,461	TS = (secondary SAME prevent*)
# 15	> 100,000	TS = (recur* or reoccur* or "re-occur*" or relaps*)
# 14	> 100,000	#13 OR #12
# 13	7608	TS = (melancholi* or dysphori* or dysthymi*)
# 12	> 100,000	TS = (depression or depressive or depressed)
# 11	82	#10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1
# 10	3	TS = "Living Life to the Full"
# 9	2	TS = "Wellbeing Program"
# 8	1	TS = "Stressbusters"
# 7	0	TS = "Sadness Program"
# 6	1	TS = "Keeping the Blues Away"
# 5	15	TS = ("MoodGYM" or "Mood GYM")
# 4	18	TS = ("BluePages" or "Blue Pages")
# 3	30	TS = "Overcoming Depression"
# 2	4	TS = "Depression Relief"
# 1	15	TS = "Beating the Blues"

Key

- TS = topic tag; searches terms in title, abstract, author keywords and keywords plus fields
- * = truncation
- " " = phrase search

- SAME = terms within same sentence.

BIOSIS Previews

ISI Web of Knowledge www.isinet.com/

1969–2008.

Searched on 17 September 2010.

3121 records were retrieved.

# 83	3121	#76 NOT #82
# 82	> 100,000	#81 OR #80 OR #79 OR #78 OR #77
# 81	82,651	TI = (cow or cattle or livestock or swine or poultry)
# 80	> 100,000	TI = (rabbit or rabbits or moss or mosses or fungus or fungi)
# 79	> 100,000	TI = (bat or bats or bee or bees or grass or grasses or bird or birds or avian)
# 78	> 100,000	TI = (fly or flies or fish or fishes or fisheries or horse or horses or equine)
# 77	> 100,000	TI = (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or canine or cat or cats or feline or bovine or sheep)
# 76	3202	#75 OR #70 OR #57 OR #55 OR #46 OR #41 OR #36 OR #34 OR #11
# 75	24	#74 OR #73 OR #72 OR #71
# 74	13	TS = IAPT
# 73	0	TS = "Improving Access to Psychological Therap*"
# 72	0	TS = "Increasing Access to Psychological Therap*"
# 71	11	TS = ("low-intensity" SAME (psychological or psychosocial))
# 70	49	#69 AND #23
# 69	2309	#68 OR #67 OR #66 OR #65 OR #64 OR #63 OR #62 OR #61 OR #60 OR #59 OR #58
# 68	154	TS = ("collaborative care" or "collaborative management")
# 67	231	TS = "stepped care"
# 66	1324	TS = ("case worker*" or "case management")
# 65	6	TS = "health care assistant*"
# 64	0	TS = "low-intensity worker*"
# 63	0	TS = "graduate mental health worker*"
# 62	0	TS = "mental health peer*"
# 61	288	TS = ((patient* or client*) SAME "support group*")
# 60	171	TS = "peer support*"
# 59	161	TS = ("para-professional*" or paraprofessional*)
# 58	0	TS = ("psychological well-being practitioner*" or "personal well-being practitioner*")
# 57	81	#56 AND #23
# 56	888	TS = (psychoeducation* or "psycho-education*")
# 55	1351	#54 AND #23
# 54	> 100,000	#53 OR #52 OR #51 OR #50 OR #49 OR #48 OR #47
# 53	2,966	TS = (yoga or yogic or pilates or danc*)
# 52	227	TS = ("tai-ji" or taiji or taijiquan or "tai-chi" or "t-ai-chi" or taichi or "shadow boxing")
# 51	> 100,000	TS = (run* or jog* or treadmill*)
# 50	> 100,000	TS = (bicycl* or cycle* or cycling)

# 49	1647	TS = (walk* SAME (fitness or aerobic or program* or intervention* or session* or regime*))
# 48	6863	TS = ((resistance or strength* or weight) SAME training)
# 47	> 100,000	TS = (exercise* or workout* or "work-out*" or "physical* activ*")
# 46	357	#45 AND #23
# 45	36,610	#44 OR #43 OR #42
# 44	20,819	TS = ((patient* or client* or user*) SAME (manual* or handbook* or workbook* or guide*))
# 43	63	TS = bibliotherap*
# 42	15,951	TS = (selfcare or "self-care" or selfmanage* or "self-manage*" or selfmonitor* or "self-monitor*" or selfhelp or "self-help" or selftreat* or "self-treat*" or selfadminister* or "self-administer*")
# 41	207	#40 AND #23
# 40	26,670	#39 OR #38 OR #37
# 39	0	TS = (cybercounsel* or "cyber-counsel*")
# 38	1763	TS = (motivation* SAME (interview* or enhance* or intervention* or therap*))
# 37	25,085	TS = (counsel*)
# 36	34	#35 AND #23
# 35	157	TS = mindfulness
# 34	1460	#33 AND #23
# 33	84,588	#32 OR #31 OR #30 OR #29 OR #28 OR #27 OR #26 OR #25 OR #24
# 32	313	TS = ("Interactive Voice Response" or IVR)
# 31	1527	TS = (telepsychology or teletherapy or telemedicine or telehealth)
# 30	600	TS = (("computer-assisted" or online) SAME (therap* or instruction*))
# 29	44	TS = (cCBT or iCBT)
# 28	263	TS = "cognitive restructuring"
# 27	52	TS = ("cognitive techniques")
# 26	1370	TS = CBT
# 25	70,488	TS = ((behavior* or behaviour*) SAME (therap* or treatment* or intervention* program* or package* or training or activat* or modif* or group*))
# 24	16,609	TS = (cognitive SAME (therap* or treatment* or intervention* or program* or package* or training or group*))
# 23	16,005	#22 AND #14
# 22	> 100,000	#21 OR #20 OR #19 OR #18 OR #17 OR #16 OR #15
# 21	1244	TS = ((second or repeat* or previous or initial or subsequent) SAME (episode* or bout* or instance* or symptom* or occurrence*) SAME (depress*))
# 20	5114	TS = ("maintenance therapy")
# 19	9079	TS = (maintain* SAME (health or wellbeing or "well-being"))
# 18	52,528	TS = (remission or remitted)
# 17	> 100,000	TS = (prophylaxis or prophylactic*)
# 16	7255	TS = (secondary SAME prevent*)
# 15	> 100,000	TS = (recur* or reoccur* or "re-occur*" or relaps*)
# 14	> 100,000	#13 OR #12
# 13	5152	TS = (melancholi* or dysphori* or dysthymi*)
# 12	> 100,000	TS = (depression or depressive or depressed)
# 11	14	#10 OR #9 OR #8 OR #7 OR #6 OR #5 OR #4 OR #3 OR #2 OR #1
# 10	0	TS = "Living Life to the Full"
# 9	0	TS = "Wellbeing Program"

# 8	0	TS = "Stressbusters"
# 7	0	TS = "Sadness Program"
# 6	0	TS = "Keeping the Blues Away"
# 5	6	TS = ("MoodGYM" or "Mood GYM")
# 4	5	TS = ("BluePages" or "Blue Pages")
# 3	1	TS = "Overcoming Depression"
# 2	3	TS = "Depression Relief"
# 1	2	TS = "Beating the Blues"

Key

- TS = topic tag; searches terms in title, abstract, author keywords and keywords plus fields
- * = truncation
- " " = phrase search
- SAME = terms within same sentence
- TI = title field.

BIOSIS Previews

Dialog www.dialog.com/

1993 to week 2 September 2010.

Searched on 20 September 2010.

777 records were retrieved.

1.	129,826	DEPRESSION OR DEPRESSIVE OR DEPRESSED/TI,AB,DE
2.	3814	MELANCHOLI? OR DYSPHORI? OR DYSTHYMI?/TI,AB,DE
3.	131,070	S1:S2
4.	191,054	RECUR? OR REOCCUR? OR RE OCCUR? OR RELAPS?/TI,AB,DE
5.	4702	SECONDARY (3W) PREVENT?/TI,AB,DE
6.	591,974	PROPHYLAXIS OR PROPHYLACTIC?/TI,AB,DE
7.	40,324	REMISSION OR REMITTED/TI,AB,DE
8.	1048	MAINTAIN? (3W) (HEALTH OR WELLBEING OR WELL (W) BEING)/TI,AB,DE
9.	4485	MAINTENANCE (W) THERAP?/TI,AB,DE
10.	143	(ANOTHER OR FURTHER OR SECOND OR REPEAT? OR PREVIOUS OR INITIAL OR SUBSEQUENT) (4W) (EPISODE? OR BOUT? OR INSTANCE? OR SYMPTOM? OR OCCURRENCE?)(4W) DEPRESS?/TI,AB,DE
11.	760,034	S4:S10
12.	15,541	S3 AND S11
13.	6418	COGNITIVE (3W) (THERAP? OR TREATMENT? OR INTERVENTION? OR PROGRAM? OR PACKAGE? OR TRAINING OR GROUP?)/TI,AB,DE
14.	4118	BEHAVIO?R? (3W) (THERAP? OR TREATMENT? OR INTERVENTION? OR PROGRAM? OR PACKAGE? OR TRAINING OR ACTIVAT? OR MODIF? OR GROUP?)/TI,AB,DE
15.	1696	CBT/TI,AB,DE
16.	197	COGNITIVE(W) (RESTRUCTURING OR TECHNIQUE?)/TI,AB,DE
17.	66	(CCBT OR ICBT)/TI,AB,DE
18.	84	(COMPUTER-ASSISTED OR ONLINE (W)THERAPY OR COMPUTER (W) ASSISTED (W) THERAPY)/TI,AB,DE

19.	201	(COMPUTER-ASSISTED OR ONLINE (W) INSTRUCTION OR COMPUTER(W) ASSISTED (W) INSTRUCTION)/TI,AB,DE
20.	1461	(TELEPSYCHOLOGY OR TELETHERAPYOR TELEMEDICINE OR TELEHEALTH)/TI,AB,DE
21.	240	(INTERACTIVE VOICE RESPONSE OR IVR)/TI,AB,DE
22.	12,269	S13:S21
23.	1095	S12 AND S22
24.	20,163	COUNSEL?/TI,AB,DE
25.	868	MOTIVATION? (2W) (INTERVIEW? OR ENHANCE? OR INTERVENTION? OR THERAP?)/TI,AB,DE
26.	0	(CYBERCOUNSEL? OR CYBER (W) COUNSEL?)/TI,AB,DE
27.	20,888	S24:S26
28.	241	S12 AND S27
29.	240	MINDFULNESS/TI,AB,DE
30.	54	S12 AND S29
31.	1587	(SELFCARE OR SELF (W) CARE)/TI,AB,DE
32.	1711	(SELFMANAG? OR SELF (W) MANAG?)/TI,AB,DE
33.	1340	(SELFMONITOR? OR SELF (W) MONITOR?)/TI,AB,DE
34.	1013	(SELFHELP OR SELF (W) HELP)/TI,AB,DE
35.	327	(SELFTREAT? OR SELF (W) TREAT?)/TI,AB,DE
36.	8586	(SELFADMINISTER? OR SELF (W) ADMINISTER?)/TI,AB,DE
37.	46	BIBLIOTHERAP?/TI,AB,DE
38.	2388	(PATIENT? OR CLIENT? OR USER?)(3W) (MANUAL? OR HANDBOOK? OR WORKBOOK? OR GUIDE?)/TI,AB,DE
39.	16,652	S31:S38
40.	230	S12 AND S39
41.	111,105	(EXERCISE? OR WORKOUT? OR WORK (W) OUT? OR PHYSICAL? (W) ACTIV?)/TI,AB,DE
42.	3454	(RESISTANCE OR STRENGTH? OR WEIGHT) (W) TRAINING/TI,AB,DE
43.	374	WALK? (3W) (FITNESS OR AEROBIC OR PROGRAM? OR INTERVENTION? OR SESSION? OR REGIME?)/TI,AB,DE
44.	308,119	(BICYCL? OR CYCLE? OR CYCLING)/TI,AB,DE
45.	88,249	(RUN? OR JOG? OR TREADMILL?)/TI,AB,DE
46.	242	(TAI (W) JI OR TAIJI OR TAIJIQUAN OR TAI (W) CHI OR T (W) AI (W) CHI OR TAICHI OR SHADOW (W) BOXING)/TI,AB,DE
47.	2126	(YOGA OR YOGIC OR PILATES OR DANC?)/TI,AB,DE
48.	483,154	S41:S47
49.	1023	S12 AND S48
50.	848	(PSYCHOEDUCATION? OR PSYCHO (W) EDUCATION?)/TI,AB,DE
51.	95	S12 AND S50
52.	0	(PSYCHOLOGICAL OR PERSONAL) (W) (WELLBEING (W) PRACTITIONER? OR WELL (W) BEING (W) PRACTITIONER?)/ TI,AB,DE
53.	72	(PARA (W) PROFESSIONAL? OR PARAPROFESSIONAL?)/TI,AB,DE
54.	149	PEER (W) SUPPORT?/TI,AB,DE
55.	103	(PATIENT? OR CLIENT?) (2W) SUPPORT (W) GROUP?/TI,AB,DE
56.	1	MENTAL (W) HEALTH (W) PEER?/TI,AB,DE
57.	0	GRADUATE (W) MENTAL (W) HEALTH (W) WORKER?/TI,AB,DE
58.	0	LOW (W) INTENSITY (W) WORKER?/TI,AB,DE
59.	10	HEALTH(W) CARE (W) ASSISTANT?/TI,AB,DE

60.	1310	CASE (W) (WORKER? OR MANAGEMENT)/TI,AB,DE
61.	154	STEPPED (W) CARE/TI,AB,DE
62.	195	COLLABORATIVE (W) (CARE OR MANAGEMENT)/TI,AB,DE
63.	1975	S52:S62
64.	59	S12 AND S63
65.	1	LOW (W) INTENSITY (5W) (PSYCHOLOGICAL OR PSYCHOSOCIAL)/TI,AB,DE
66.	0	INCREASING (W) ACCESS (2W) PSYCHOLOGICAL (W) THERAP?/TI,AB,DE
67.	1	IMPROVING (W) ACCESS(2W) PSYCHOLOGICAL (W) THERAP?/TI,AB,DE
68.	14	IAPT/TI,AB,DE
69.	15	S65:S68
70.	2502	S23 OR S28 OR S30 OR S40 OR S49 OR S51 OR S64 OR S69
71.	867,148	(RAT OR RATS OR MOUSE OR MICE OR HAMSTER OR HAMSTERS OR ANIMAL OR ANIMALS OR DOG OR DOGS OR CANINE OR CAT OR CATS OR FELINE OR BOVINE OR SHEEP)/TI
72.	88,548	(FLY OR FLIES OR FISH OR FISHES OR FISHERIES OR HORSE OR HORSES OR EQUINE)/TI
73.	54,830	(BAT OR BATS OR BEE OR BEES OR GRASS OR GRASSES OR BIRD OR BIRDSOR AVIAN)/TI
74.	72,372	(RABBIT OR RABBITS OR MOSS OR MOSSES OR FUNGUS OR FUNGI)/TI
75.	44,920	(COW OR CATTLE OR LIVESTOCK OR SWINE OR POULTRY)/TI
76.	1,116,322	S71:S75
77.	2474	S70 NOT S76
78.	777	S77/2008:2010

Key

- ? = truncation
- /TI,AB,DE = terms in title, abstract, or descriptor fields
- (W) = terms adjacent to each other (same order)
- (2W) = terms within three words of each other (same order)
- PY = publication year
- : = range e.g. PY = 2008:2011 means year = 2008 OR 2009 OR 2010 OR 2011
- S77/2008:2010 – limits set 77 to records published between 2008 and 2010 (inclusive).

Guideline searches

A range of resources were searched or browsed for guidelines on the treatment of depression.

Clinical Evidence

http://clinicalevidence.bmj.com/ceweb/index.jsp

Searched on 20 September 2010.

Four relevant reviews found.

National Institute for Health and Clinical Excellence (NICE)

http://guidance.nice.org.uk/Topic/MentalHealthBehavioural

Searched on 4 October 2010.

Five relevant guidelines found.

NHS Evidence – Guidelines Finder
www.library.nhs.uk/guidelinesFinder/

Searched on 5 October 2010.

Seven relevant guidelines found.

National Guidelines Clearing House
www.guideline.gov/

Searched on 5 October 2010.

Fourteen relevant guidelines found.

New Zealand Guidelines Group
www.nzgg.org.nz/index.cfm?fuseaction=fuseaction_10&fusesubaction=docs&documentid=22

Searched on 5 October 2010.

Two relevant guidelines found.

Australian National Health and Medical Research Council: clinical practice guidelines
www.nhmrc.gov.au/publications/subjects/clinical.htm

Searched on 5 October 2010.

No relevant guidelines found.

Canadian Medical Association – Infobase: clinical practice guidelines
www.cma.ca/index.php/ci_id/54316/la_id/1.htm

Searched on 5 October 2010.

Six relevant guidelines found.

Health Canada: guidelines
www.hc-sc.gc.ca/ahc-asc/legislation/guide-ld/index-eng.php

Searched on 5 October 2010.

No relevant guidelines found.

Public Health Agency of Canada: guidelines
www.phac-aspc.gc.ca/dpg-eng.php

Searched on 5 October 2010.

One relevant guideline found.

Cost-effectiveness

The Cochrane Library

http://onlinelibrary.wiley.com/

NHS Economic Evaluation Database (NHS EED), Issue 4, 2010.

Cochrane Central Register of Controlled Trials (CENTRAL), Issue 4, 2010.

Searched 22 October 2010.

62 records were retrieved – three from NHS EED and 43 from CENTRAL.

#1 "Beating the Blues":ti,ab (4)
#2 "Depression Relief":ti,ab (2)
#3 "Overcoming Depression":ti,ab (6)
#4 ("BluePages" or "Blue Pages"):ti,ab (3)
#5 ("MoodGYM" or "Mood GYM"):ti,ab (10)
#6 "Keeping the Blues Away":ti,ab (1)
#7 "Sadness Program":ti,ab (0)
#8 "Stressbusters":ti,ab (0)
#9 "Think feel do":ti,ab (0)
#10 "Wellbeing Program":ti,ab (0)
#11 "Living Life to the Full":ti,ab (0)
#12 (#1 OR #2 OR #3 OR #4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11) (24)
#13 MeSH descriptor Depressive Disorder explode all trees (6154)
#14 MeSH descriptor Depression, this term only (4010)
#15 (depression or depressive or depressed):ti,ab (25,249)
#16 (melancholi* or dysphori* or dysthymi*):ti,ab (1136)
#17 (#13 OR #14 OR #15 OR #16) (27,205)
#18 MeSH descriptor Recurrence, this term only (10,301)
#19 (recur* or reoccur* or (re NEXT occur*) or relaps*):ti,ab (27,197)
#20 MeSH descriptor Secondary Prevention, this term only (47)
#21 (secondary NEAR/3 prevent*):ti,ab (1404)
#22 (prophylaxis or prophylactic*):ti,ab (16,468)
#23 MeSH descriptor Remission Induction, this term only (2357)
#24 (remission or remitted):ti,ab (8105)
#25 (maintain* NEAR/3 (health or wellbeing or (well NEXT being))):ti,ab (135)
#26 ((another or further or second or repeat* or previous or initial or subsequent) NEAR/4 (episode* or bout* or instance* or symptom* or occurrence*) NEAR/4 depress*):ti,ab (141)
#27 (#18 OR #19 OR #20 OR #21 OR #22 OR #23 OR #24 OR #25 OR #26) (52,739)
#28 (#17 AND #27) (2884)
#29 MeSH descriptor Cognitive Therapy, this term only (3258)
#30 MeSH descriptor Behavior Therapy explode all trees (7539)
#31 (cognitive NEAR/3 (therap* or treatment* or intervention* or program* or package* or training or group*)):ti,ab (5313)
#32 ((behavior* or behaviour*) NEAR/3 (therap* or treatment* or intervention* or program* or package* or training or activat* or modif* or group*)):ti,ab (8142)

#33 CBT:ti,ab (1196)
#34 (cognitive NEXT restructuring):ti,ab (213)
#35 (cCBT or iCBT):ti,ab (30)
#36 MeSH descriptor Telemedicine, this term only (616)
#37 MeSH descriptor Therapy, Computer-Assisted, this term only (433)
#38 MeSH descriptor Computer-Assisted Instruction, this term only (621)
#39 (telepsychology or teletherapy or telemedicine or telehealth):ti,ab (476)
#40 ("Interactive Voice Response" or IVR):ti,ab (110)
#41 (#29 OR #30 OR #31 OR #32 OR #33 OR #34 OR #35 OR #36 OR #37 OR #38 OR #39 OR #40) (15,916)
#42 (#28 AND #41) (427)
#43 MeSH descriptor Counseling, this term only (2146)
#44 MeSH descriptor Directive Counseling, this term only (133)
#45 counsel*:ti,ab (4780)
#46 (motivation* NEAR/2 (interview* or enhance* or intervention* or therap*)):ti,ab (747)
#47 (cybercounsel* or (cyber NEXT counsel*)):ti,ab (0)
#48 (#43 OR #44 OR #45 OR #46 OR #47) (6054)
#49 (#28 AND #48) (53)
#50 mindfulness:ti,ab (191)
#51 (#28 AND #50) (28)
#52 MeSH descriptor Self Care explode all trees (2817)
#53 MeSH descriptor Self-Help Groups, this term only (465)
#54 (selfcare or (self NEXT care)):ti,ab (741)
#55 (selfmanage* or (self NEXT manage*) or selfmonitor* or (self NEXT monitor*)):ti,ab (1788)
#56 (selfhelp or (self NEXT help)):ti,ab (780)
#57 (selftreat* or (self NEXT treat*)):ti,ab (98)
#58 (selfadminister* or (self NEXT administer*)):ti,ab (1652)
#59 MeSH descriptor Bibliotherapy, this term only (67)
#60 MeSH descriptor Manuals as Topic, this term only (112)
#61 MeSH descriptor Books, this term only (27)
#62 bibliotherap*:ti,ab (104)
#63 ((patient* or client* or user*) NEAR/3 (manual* or handbook* or workbook* or guide*)):ti,ab (793)
#64 (#52 OR #53 OR #54 OR #55 OR #56 OR #57 OR #58 OR #59 OR #60 OR #61 OR #62 OR #63) (7557)
#65 (#64 AND #28) (73)
#66 MeSH descriptor Exercise explode all trees (7550)
#67 MeSH descriptor Exercise Therapy explode all trees (4256)
#68 MeSH descriptor Exercise Movement Techniques explode all trees (746)
#69 MeSH descriptor Sports explode all trees (6317)
#70 (exercise* or workout* or (work NEXT out*) or (physical* NEXT activ*)):ti,ab (27,147)
#71 ((resistance or strength* or weight) NEAR training):ti,ab (2601)
#72 (walk* NEAR/3 (fitness or aerobic or program* or intervention* or session* or regime*)):ti,ab (460)
#73 (bicycl* or cycle* or cycling):ti,ab (15,694)
#74 (run* or jog* or treadmill*):ti,ab (9350)
#75 ((tai NEXT ji) or taiji or taijiquan or (tai NEXT chi) or (t NEXT ai NEXT chi) or taichi or (shadow NEXT boxing)):ti,ab (202)
#76 (yoga or yogic or pilates or danc*):ti,ab (458)

#77 (#66 OR #67 OR #68 OR #69 OR #70 OR #71 OR #72 OR #73 OR #74 OR #75 OR #76) (48,971)
#78 (#77 AND #28) (179)
#79 MeSH descriptor Patient Education as Topic, this term only (5087)
#80 (psychoeducation* or (psycho NEXT education*)):ti,ab (776)
#81 (#79 OR #80) (5656)
#82 (#81 AND #28) (79)
#83 MeSH descriptor Allied Health Personnel, this term only (134)
#84 MeSH descriptor Case Management, this term only (612)
#85 (psychological NEXT wellbeing NEXT practitioner*):ti,ab (0)
#86 (psychological NEXT (well NEXT being) NEXT practitioner*):ti,ab (0)
#87 (personal NEXT wellbeing NEXT practitioner*):ti,ab (0)
#88 (personal NEXT (well NEXT being) NEXT practitioner*):ti,ab (0)
#89 ((para NEXT professional*) or paraprofessional*):ti,ab (93)
#90 (peer NEXT support*):ti,ab (128)
#91 ((patient* or client*) NEAR/2 (support NEXT group*)):ti,ab (10)
#92 (mental NEXT health NEXT peer*):ti,ab (2)
#93 (graduate NEXT mental NEXT health NEXT worker*):ti,ab (1)
#94 (low NEXT intensity NEXT worker*):ti,ab (0)
#95 (health NEXT care NEXT assistant*):ti,ab (5)
#96 (case NEXT (worker* or management)):ti,ab (781)
#97 (stepped NEXT care):ti,ab (178)
#98 (collaborative NEXT (care or management)):ti,ab (160)
#99 (#83 OR #84 OR #85 OR #86 OR #87 OR #88 OR #89 OR #90 OR #91 OR #92 OR #93 OR #94 OR #95 OR #96 OR #97 OR #98) (1720)
#100 (#99 AND #28) (31)
#101 ((low NEXT intensity) NEAR/5 (psychological or psychosocial)):ti,ab (2)
#102 "Increasing Access to Psychological Therapy":ti,ab (0)
#103 "Increasing Access to Psychological Therapies":ti,ab (0)
#104 "Improving Access to Psychological Therapy":ti,ab (0)
#105 "Improving Access to Psychological Therapies":ti,ab (0)
#106 IAPT:ti,ab (0)
#107 (#101 OR #102 OR #103 OR #104 OR #105 OR #106) (2)
#108 (#12 OR #42 OR #49 OR #51 OR #65 OR #78 OR #82 OR #100 OR #107) (723)
#109 MeSH descriptor Economics, this term only (76)
#110 MeSH descriptor Costs and Cost Analysis explode all trees (30,817)
#111 MeSH descriptor Economics, Dental, this term only (7)
#112 MeSH descriptor Economics, Hospital explode all trees (3247)
#113 MeSH descriptor Economics, Medical, this term only (143)
#114 MeSH descriptor Economics, Nursing, this term only (29)
#115 MeSH descriptor Economics, Pharmaceutical, this term only (690)
#116 (econom* or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic*) (58,512)
#117 (expenditure* not energy) (2134)
#118 (value NEAR/1 money) (4)
#119 budget* (835)
#120 (#109 OR #110 OR #111 OR #112 OR #113 OR #114 OR #115 OR #116 OR #117 OR #118 OR #119) (58,779)
#121 ((energy or oxygen) NEAR/1 cost) (242)
#122 (metabolic NEAR/1 cost) (51)
#123 ((energy or oxygen) NEAR/1 expenditure) (1485)
#124 (#121 OR #112 OR #123) (4906)

#125 (#120 AND NOT #124) (55,202)
#126 (#108 AND #125) (62)

Key

- MeSH descriptor = indexing term (MeSH heading)
- * = truncation
- " " = phrase search
- :ti,ab = terms in either title or abstract fields
- NEAR/2 = terms within two words of each other (any order)
- NEXT = terms are next to each other.

MEDLINE

OvidSP http://ovidSP.ovid.com

1950 to week 2 October 2010.

Searched on 22 October 2010.

158 records were retrieved.

1. Beating the Blues.ti,ab. (11)
2. Depression Relief.ti,ab. (5)
3. Overcoming Depression.ti,ab. (9)
4. (BluePages or Blue Pages).ti,ab. (5)
5. (MoodGYM or Mood GYM).ti,ab. (16)
6. Keeping the Blues Away.ti,ab. (1)
7. Sadness Program.ti,ab. (0)
8. Stressbusters.ti,ab. (2)
9. Think feel do.ti,ab. (0)
10. Wellbeing Program.ti,ab. (3)
11. Living Life to the Full.ti,ab. (3)
12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (50)
13. exp Depressive Disorder/ (67,684)
14. Depression/ (58,231)
15. (depression or depressive or depressed).ti,ab. (228,568)
16. (melancholi$ or dysphori$ or dysthymi$).ti,ab. (6964)
17. 13 or 14 or 15 or 16 (264,178)
18. Recurrence/ (137,770)
19. (recur$ or reoccur$ or re occur$ or relaps$).ti,ab. (381,860)
20. Secondary Prevention/ (556)
21. (secondary adj3 prevent$).ti,ab. (12,217)
22. (prophylaxis or prophylactic$).ti,ab. (97,325)
23. Remission Induction/ (26,272)
24. (remission or remitted).ti,ab. (68,089)
25. (maintain$ adj3 (health or wellbeing or well being)).ti,ab. (2761)
26. ((another or further or second or repeat$ or previous or initial or subsequent) adj4 (episode$ or bout$ or instance$ or symptom$ or occurrence$) adj4 depress$).ti,ab. (1009)
27. 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 (592,441)
28. 17 and 27 (16,518)
29. Cognitive Therapy/ (11,080)
30. exp Behavior Therapy/ (42,681)

31. (cognitive adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or group$)).ti,ab. (11,630)
32. (behavio?r$ adj3 (therap$ or treatment$ or intervention$program$ or package$ or training or activat$ or modif$ or group$)).ti,ab. (32,564)
33. CBT.ti,ab. (2786)
34. cognitive restructuring.ti,ab. (411)
35. (cCBT or iCBT).ti,ab. (97)
36. Telemedicine/ (7759)
37. Therapy, Computer-Assisted/ (3969)
38. Computer-Assisted Instruction/ (7640)
39. (telepsychology or teletherapy or telemedicine or telehealth).ti,ab. (6110)
40. (Interactive Voice Response or IVR).ti,ab. (531)
41. 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 (90,094)
42. 41 and 28 (1033)
43. counseling/or directive counseling/ (24,542)
44. counsel$.ti,ab. (52,258)
45. (motivation$ adj2 (interview$ or enhance$ or intervention$ or therap$)).ti,ab. (1813)
46. (cybercounsel$ or cyber counsel$).ti,ab. (2)
47. 43 or 44 or 45 or 46 (65,484)
48. 47 and 28 (199)
49. mindfulness.ti,ab. (621)
50. 49 and 28 (44)
51. exp Self Care/ (32,543)
52. Self-Help Groups/ (6922)
53. (selfcare or self care).ti,ab. (7406)
54. (selfmanage$ or self manage$).ti,ab. (4946)
55. (selfmonitor$ or self monitor$).ti,ab. (3226)
56. (selfhelp or self help).ti,ab. (3684)
57. (selftreat$ or self treat$).ti,ab. (925)
58. (selfadminister$ or self administer$).ti,ab. (17,074)
59. Bibliotherapy/ (283)
60. Manuals as Topic/ (3229)
61. Books/ (1970)
62. bibliotherap$.ti,ab. (213)
63. ((patient$ or client$ or user$) adj3 (manual$ or handbook$ or workbook$ or guide$)).ti,ab. (8973)
64. 51 or 52 or 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 (77,546)
65. 64 and 28 (291)
66. exp Exercise/ (53,519)
67. exp Exercise Therapy/ (22,146)
68. exp Exercise Movement Techniques/ (3963)
69. exp Sports/ (88,172)
70. (exercise$ or workout$ or work out$ or physical$activ$).ti,ab. (183,654)
71. ((resistance or strength$ or weight) adj training).ti,ab. (4351)
72. (walk$ adj3 (fitness or aerobic or program$ or intervention$ or session$ or regime$)).ti,ab. (1150)
73. (bicycl$ or cycle$ or cycling).ti,ab. (330,414)
74. (run$ or jog$ or treadmill$).ti,ab. (108,076)
75. (tai ji or taiji or taijiquan or tai chi or t ai chi or taichi or shadow boxing).ti,ab. (509)
76. (yoga or yogic or pilates or danc$).ti,ab. (3884)
77. 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 (657,412)
78. 77 and 28 (1052)

79. Patient Education as Topic/ (60,271)
80. (psychoeducation$ or psycho education$).ti,ab. (2208)
81. 79 or 80 (61,864)
82. 81 and 28 (260)
83. Allied Health Personnel/ (9346)
84. Case Management/ (7023)
85. ((psychological or personal) adj (wellbeing practitioner$ or well being practitioner$)).ti,ab. (0)
86. (para professional$ or paraprofessional$).ti,ab. (704)
87. peer support$.ti,ab. (923)
88. ((patient$ or client$) adj2 support group$).ti,ab. (263)
89. mental health peer$.ti,ab. (5)
90. graduate mental health worker$.ti,ab. (10)
91. low intensity worker$.ti,ab. (0)
92. health care assistant$.ti,ab. (134)
93. (case adj (worker$ or management)).ti,ab. (5885)
94. stepped care.ti,ab. (520)
95. (collaborative adj (care or management)).ti,ab. (624)
96. 83 or 84 or 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 (22,658)
97. 96 and 28 (72)
98. (low intensity adj5 (psychological or psychosocial)).ti,ab. (12)
99. Increasing Access to Psychological Therap$.ti,ab. (1)
100. Improving Access to Psychological Therap$.ti,ab. (6)
101. IAPT.ti,ab. (7)
102. 98 or 99 or 100 or 101 (24)
103. 12 or 42 or 48 or 50 or 65 or 78 or 82 or 97 or 102 (2617)
104. Animals/ (4,722,671)
105. Humans/ (11,541,120)
106. 104 not (104 and 105) (3,501,448)
107. 103 not 106 (2559)
108. letter.pt. (696,237)
109. editorial.pt. (265,801)
110. comment.pt. (425,820)
111. 108 or 109 or 110 (1,033,359)
112. 107 not 111 (2529)
113. economics/ (25,987)
114. exp "costs and cost analysis"/ (153,908)
115. economics, dental/ (1835)
116. exp "economics, hospital"/ (16,898)
117. economics, medical/ (8323)
118. economics, nursing/ (3826)
119. economics, pharmaceutical/ (2155)
120. (econom$ or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic$).ti,ab. (334,038)
121. (expenditure$ not energy).ti,ab. (13,844)
122. (value adj1 money).ti,ab. (18)
123. budget$.ti,ab. (14,021)
124. or/113–123 (443,197)
125. ((energy or oxygen) adj cost).ti,ab. (2244)
126. (metabolic adj cost).ti,ab. (583)
127. ((energy or oxygen) adj expenditure).ti,ab. (12,761)
128. or/125–127 (14,993)

129. 124 not 128 (439,696)
130. letter.pt. (696,237)
131. editorial.pt. (265,801)
132. historical-article.pt. (270,029)
133. or/130–132 (1,219,838)
134. 129 not 133 (415,600)
135. animals/ (4,722,671)
136. human/ (11,541,120)
137. 135 not (135 and 136) (3,501,448)
138. 134 not 137 (391,795)
139. 112 and 138 (158)

Key

- / = indexing term (MeSH heading)
- exp = exploded MeSH heading
- $ =truncation
- ? = embedded truncation
- pt = publication type
- .ti,ab. = terms in either title or abstract fields
- adj = terms adjacent to each other (same order)
- adj2 = terms within two words of each other (any order).

EMBASE

OvidSP http://ovidSP.ovid.com/

1980 to week 41 2010.

Searched on 22 October 2010.

423 records were retrieved.

1. Beating the Blues.ti,ab. (16)
2. Depression Relief.ti,ab. (8)
3. Overcoming Depression.ti,ab. (14)
4. (BluePages or Blue Pages).ti,ab. (7)
5. (MoodGYM or Mood GYM).ti,ab. (19)
6. Keeping the Blues Away.ti,ab. (1)
7. Sadness Program.ti,ab. (0)
8. Stressbusters.ti,ab. (2)
9. Think feel do.ti,ab. (1)
10. 10 Wellbeing Program.ti,ab. (4)
11. Living Life to the Full.ti,ab. (3)
12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (67)
13. exp depression/ (230,624)
14. (depression or depressive or depressed).ti,ab. (265,744)
15. (melancholi$ or dysphori$ or dysthymi$).ti,ab. (8685)
16. 13 or 14 or 15 (356,576)
17. recurrent disease/ (104,082)
18. relapse/ (33,031)
19. (recur$ or reoccur$ or re occur$ or relaps$).ti,ab. (452,614)
20. Secondary Prevention/ (9386)
21. (secondary adj3 prevent$).ti,ab. (16,204)

22. prophylaxis/ (44,266)
23. (prophylaxis or prophylactic$).ti,ab. (118,378)
24. remission/ (48,652)
25. (remission or remitted).ti,ab. (79,463)
26. (maintain$ adj3 (health or wellbeing or well being)).ti,ab. (3185)
27. ((another or further or second or repeat$ or previous or initial or subsequent) adj4 (episode$ or bout$ or instance$ or symptom$ or occurrence$) adj4 depress$).ti,ab. (1187)
28. 17 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 (705,789)
29. 16 and 28 (24,581)
30. Cognitive Therapy/ (22,766)
31. behavior therapy/ (32,526)
32. behavior modification/ (5677)
33. (cognitive adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or group$)).ti,ab. (17,204)
34. (behavio?r$ adj3 (therap$ or treatment$ or intervention$program$ or package$ or training or activat$ or modif$ or group$)).ti,ab. (41,007)
35. CBT.ti,ab. (4196)
36. cognitive restructuring.ti,ab. (679)
37. (cCBT or iCBT).ti,ab. (130)
38. exp telehealth/ (10,779)
39. computer assisted therapy/ (2607)
40. (telepsychology or teletherapy or telemedicine or telehealth).ti,ab. (6927)
41. interactive voice response system/ (131)
42. (Interactive Voice Response or IVR).ti,ab. (682)
43. 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 (96,338)
44. 43 and 29 (1917)
45. exp counseling/ (77,508)
46. counsel$.ti,ab. (61,636)
47. (motivation$ adj2 (interview$ or enhance$ or intervention$ or therap$)).ti,ab. (2440)
48. (cybercounsel$ or cyber counsel$).ti,ab. (2)
49. 45 or 46 or 47 or 48 (106,226)
50. 49 and 29 (466)
51. mindfulness.ti,ab. (937)
52. 51 and 29 (75)
53. exp Self Care/ (35,497)
54. (selfcare or self care).ti,ab. (8715)
55. (selfmanage$ or self manage$).ti,ab. (6402)
56. (selfmonitor$ or self monitor$).ti,ab. (4188)
57. (selfhelp or self help).ti,ab. (4669)
58. (selftreat$ or self treat$).ti,ab. (1180)
59. (selfadminister$ or self administer$).ti,ab. (19,130)
60. book/ (12,945)
61. bibliotherap$.ti,ab. (300)
62. ((patient$ or client$ or user$) adj3 (manual$ or handbook$ or workbook$ or guide$)).ti,ab. (11,266)
63. 53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 (89,419)
64. 63 and 29 (405)
65. exp Exercise/ (146,682)
66. exp sport/ (70,614)
67. exp physical activity/ (153,076)
68. exp kinesiotherapy/ (34,433)
69. music therapy/ (3057)

70. treadmill/or treadmill exercise/ (12,465)
71. (exercise$ or workout$ or work out$ or physical$activ$).ti,ab. (216,208)
72. ((resistance or strength$ or weight) adj training).ti,ab. (5173)
73. (walk$ adj3 (fitness or aerobic or program$ or intervention$ or session$ or regime$)).ti,ab. (1400)
74. (bicycl$ or cycle$ or cycling).ti,ab. (368,044)
75. (run$ or jog$ or treadmill$).ti,ab. (127,399)
76. (tai ji or taiji or taijiquan or tai chi or t ai chi or taichi or shadow boxing).ti,ab. (689)
77. (yoga or yogic or pilates or danc$).ti,ab. (5228)
78. 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 (855,163)
79. 78 and 29 (1796)
80. psychoeducation/ (1832)
81. patient education/ (70,747)
82. (psychoeducation$ or psycho education$).ti,ab. (3207)
83. 80 or 81 or 82 (74,268)
84. 83 and 29 (628)
85. paramedical personnel/ (9745)
86. case management/or case manager/ (5489)
87. support group/ (4954)
88. peer group/ (8195)
89. ((psychological or personal) adj (wellbeing practitioner$ or well being practitioner$)).ti,ab. (0)
90. (para professional$ or paraprofessional$).ti,ab. (677)
91. peer support$.ti,ab. (1165)
92. ((patient$ or client$) adj2 support group$).ti,ab. (348)
93. mental health peer$.ti,ab. (7)
94. graduate mental health worker$.ti,ab. (15)
95. low intensity worker$.ti,ab. (1)
96. health care assistant$.ti,ab. (151)
97. (case adj (worker$ or management)).ti,ab. (6668)
98. stepped care.ti,ab. (632)
99. (collaborative adj (care or management)).ti,ab. (779)
100. 85 or 86 or 87 or 88 or 89 or 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98 or 99 (35,819)
101. 100 and 29 (156)
102. (low intensity adj5 (psychological or psychosocial)).ti,ab. (12)
103. Increasing Access to Psychological Therap$.ti,ab. (3)
104. Improving Access to Psychological Therap$.ti,ab. (21)
105. IAPT.ti,ab. (21)
106. 102 or 103 or 104 or 105 (46)
107. 12 or 44 or 50 or 52 or 64 or 79 or 84 or 101 or 106 (4592)
108. editorial.pt. (356,865)
109. letter.pt. (704,364)
110. 108 or 109 (1,061,229)
111. 107 not 110 (4485)
112. exp animal/ (1,632,799)
113. exp nonhuman/ (3,514,218)
114. exp animal experiment/ (1,396,171)
115. (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ti,ab,sh. (3,950,443)
116. 112 or 113 or 114 or 115 (5,675,551)
117. exp human/ (12,039,117)

118. exp human experiment/ (282,706)
119. 117 or 118 (12,040,498)
120. 116 not (116 and 119) (4,494,950)
121. 111 not 120 (4418)
122. health-economics/ (29,603)
123. exp economic-evaluation/ (160,071)
124. exp health-care-cost/ (153,513)
125. exp pharmacoeconomics/ (132,321)
126. 122 or 123 or 124 or 125 (369,725)
127. (econom$ or cost or costs or costly or costing or price or prices or pricing or pharmacoeconomic$).ti,ab. (407,190)
128. (expenditure$ not energy).ti,ab. (16,385)
129. (value adj2 money).ti,ab. (854)
130. budget$.ti,ab. (17,453)
131. 127 or 128 or 129 or 130 (424,985)
132. 126 or 131 (645,743)
133. letter.pt. (704,364)
134. editorial.pt. (356,865)
135. note.pt. (424,000)
136. 133 or 134 or 135 (1,485,229)
137. 132 not 136 (578,462)
138. (metabolic adj cost).ti,ab. (622)
139. ((energy or oxygen) adj cost).ti,ab. (2457)
140. ((energy or oxygen) adj expenditure).ti,ab. (14,419)
141. 138 or 139 or 140 (16,852)
142. 137 not 141 (574,620)
143. exp animal/ (1,632,799)
144. exp animal-experiment/ (1,396,171)
145. nonhuman/ (3,514,218)
146. (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ti,ab,sh. (3,950,443)
147. 143 or 144 or 145 or 146 (5,675,551)
148. exp human/ (12,039,117)
149. exp human-experiment/ (282,706)
150. 148 or 149 (12,040,498)
151. 147 not (147 and 150) (4,494,950)
152. 142 not 151 (534,924)
153. 121 and 152 (423)

Key

- / = indexing term (EMTREE heading)
- * = focused EMTREE heading
- exp = exploded EMTREE heading
- $ = truncation
- ? = embedded truncation
- .ti,ab. = terms in either title or abstract fields
- adj = terms adjacent to each other (same order)
- adj2 = terms within two words of each other (any order)
- sh = subject heading field.

EconLit

OvidSP http://ovidSP.ovid.com/

1969 to September 2010.

Searched on 22 October 2010.

12 records were retrieved.

1. Beating the Blues.ti,ab. (0)
2. Depression Relief.ti,ab. (1)
3. Overcoming Depression.ti,ab. (0)
4. (BluePages or Blue Pages).ti,ab. (0)
5. (MoodGYM or Mood GYM).ti,ab. (0)
6. Keeping the Blues Away.ti,ab. (0)
7. Sadness Program.ti,ab. (0)
8. Stressbusters.ti,ab. (0)
9. Think feel do.ti,ab. (0)
10. 10 Wellbeing Program.ti,ab. (0)
11. Living Life to the Full.ti,ab. (0)
12. 1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 (1)
13. (depression or depressive or depressed).ti,ab. (2745)
14. (melancholi$ or dysphori$ or dysthymi$).ti,ab. (4)
15. 13 or 14 (2746)
16. (recur$ or reoccur$ or re occur$ or relaps$).ti,ab. (3173)
17. (secondary adj3 prevent$).ti,ab. (15)
18. (prophylaxis or prophylactic$).ti,ab. (51)
19. (remission or remitted).ti,ab. (40)
20. (maintain$ adj3 (health or wellbeing or well being)).ti,ab. (46)
21. ((another or further or second or repeat$ or previous or initial or subsequent) adj4 (episode$ or bout$ or instance$ or symptom$ or occurrence$) adj4 depress$).ti,ab. (1)
22. 16 or 17 or 18 or 19 or 20 or 21 (3321)
23. 15 and 22 (27)
24. (cognitive adj3 (therap$ or treatment$ or intervention$ or program$ or package$ or training or group$)).ti,ab. (21)
25. (behavio?r$ adj3 (therap$ or treatment$ or intervention$program$ or package$ or training or activat$ or modif$ or group$)).ti,ab. (525)
26. CBT.ti,ab. (18)
27. cognitive restructuring.ti,ab. (0)
28. (cCBT or iCBT).ti,ab. (1)
29. (telepsychology or teletherapy or telemedicine or telehealth).ti,ab. (16)
30. (Interactive Voice Response or IVR).ti,ab. (5)
31. 24 or 25 or 26 or 27 or 28 or 29 or 30 (579)
32. 31 and 23 (1)
33. counsel$.ti,ab. (483)
34. (motivation$ adj2 (interview$ or enhance$ or intervention$ or therap$)).ti,ab. (18)
35. (cybercounsel$ or cyber counsel$).ti,ab. (0)
36. 33 or 34 or 35 (501)
37. 36 and 23 (0)
38. mindfulness.ti,ab. (6)
39. 38 and 23 (0)
40. (selfcare or self care).ti,ab. (21)
41. (selfmanage$ or self manage$).ti,ab. (332)
42. (selfmonitor$ or self monitor$).ti,ab. (24)
43. (selfhelp or self help).ti,ab. (241)

44. (selftreat$ or self treat$).ti,ab. (4)
45. (selfadminister$ or self administer$).ti,ab. (62)
46. bibliotherap$.ti,ab. (0)
47. ((patient$ or client$ or user$) adj3 (manual$ or handbook$ or workbook$ or guide$)).ti,ab. (151)
48. 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 (832)
49. 48 and 23 (0)
50. (exercise$ or workout$ or work out$ or physical$activ$).ti,ab. (6161)
51. ((resistance or strength$ or weight) adj training).ti,ab. (2)
52. (walk$ adj3 (fitness or aerobic or program$ or intervention$ or session$ or regime$)).ti,ab. (8)
53. (bicycl$ or cycle$ or cycling).ti,ab. (18,680)
54. (run$ or jog$ or treadmill$).ti,ab. (26,985)
55. (tai ji or taiji or taijiquan or tai chi or t ai chi or taichi or shadow boxing).ti,ab. (4)
56. (yoga or yogic or pilates or danc$).ti,ab. (156)
57. 50 or 51 or 52 or 53 or 54 or 55 or 56 (50,234)
58. 57 and 23 (4)
59. (psychoeducation$ or psycho education$).ti,ab. (3)
60. 59 and 23 (1)
61. ((psychological or personal) adj (wellbeing practitioner$ or well being practitioner$)).ti,ab. (0)
62. (para professional$ or paraprofessional$).ti,ab. (10)
63. peer support$.ti,ab. (12)
64. ((patient$ or client$) adj2 support group$).ti,ab. (0)
65. mental health peer$.ti,ab. (0)
66. graduate mental health worker$.ti,ab. (0)
67. low intensity worker$.ti,ab. (0)
68. health care assistant$.ti,ab. (0)
69. (case adj (worker$ or management)).ti,ab. (80)
70. stepped care.ti,ab. (0)
71. (collaborative adj (care or management)).ti,ab. (17)
72. 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 (119)
73. 72 and 23 (1)
74. (low intensity adj5 (psychological or psychosocial)).ti,ab. (0)
75. Increasing Access to Psychological Therap$.ti,ab. (0)
76. Improving Access to Psychological Therap$.ti,ab. (1)
77. IAPT.ti,ab. (5)
78. 74 or 75 or 76 or 77 (5)
79. 12 or 32 or 37 or 39 or 49 or 58 or 60 or 73 or 78 (12).

Key

- $ = truncation
- ? = embedded truncation
- .ti,ab. = terms in either title or abstract fields
- adj = terms adjacent to each other (same order)
- adj2 = terms within two words of each other (any order).

IDEAS database

http://ideas.repec.org/search.html

Searched on 3 November 2010.

114 records retrieved.

((recur|recurs|recurrence|recurred|relapse|relapses|relapsed|reoccur|reoccurs|reoccurrence|reoccurred|repeat|subsequent)+(depression|depressive|depressed|melancholia|melancholic|melancholy|dysphoria|dysphoric|dysthymia|dysthymic))
Match: Change to Boolean
Word forms:Change to Exact
Use Synonyms: Change to No

Key

- | = OR
- + = AND.

Appendix 2

Table of excluded studies with rationale

Key

Reason for exclusion	Inclusion criteria	No. of studies excluded
1	Children (aged < 12 years)	0
2	Not previously treated for depression	27
3	Not currently asymptomatic or responding to treatment	18
4	Not unipolar depression	2
5	Study design	20
6	Not part A or part B intervention	29
7	Insufficient information available or paper unobtainable	6

Excluded studies

Study		Reason
1.	Allen M, Bromley A, Kuyken W, Sonnenberg SJ. Participants' experiences of mindfulness-based cognitive therapy: 'It changed me in just about every way possible'. *Behav Cogn Psychother* 2009;**37**:413–30	5
2.	Andersson G, Bergstrom J, Hollandare F, Ekselius L, Carlbring P. Delivering cognitive behavioral therapy for mild to moderate depression via the Internet: predicting outcome at 6-month follow-up. *Verhaltenstherapie* 2004;**14**:185–9	2
3.	Aubert RE, Fulop G, Xia F, Thiel M, Maldonato D, Woo C. Evaluation of a depression health management program to improve outcomes in first or recurrent episode depression. *Am J Manag Care* 2003;**9**:374–80	3
4.	Baker AL, Wilson PH. Cognitive-behavior therapy for depression: the effects of booster sessions on relapse. *Behav Ther* 1985;**16**:335–44	3
5.	Barrera AZ, Torres LD, Munoz RF. Prevention of depression: the state of the science at the beginning of the 21st Century. *Int Rev Psychiatry* 2007;**19**:655–70	2
6.	Bennett K, Reynolds J, Christensen H, Griffiths KM. e-hub: an online self-help mental health service in the community. *Med J Aust* 2010;**192**(Suppl.):48–52	2
7.	Berlin S. Maintaining reduced levels of self-criticism through relapse-prevention treatment. *Soc Work Res Abstr* 1985;**21**:21–33	2
8.	Bertschy GB, Jermann F, Bizzini L, Weber-Rouget B, Myers-Arrazola M, van der Linden M. Mindfulness based cognitive therapy: a randomized controlled study on its efficiency to reduce depressive relapse/recurrence. *J Affect Disord* 2008;**107**(Suppl. 1):59–60	6
9.	Bondolfi G, Jermann F, der Linden MV, Gex-Fabry M, Bizzini L, Weber RB, *et al.* Depression relapse prophylaxis with mindfulness-based cognitive therapy: a replication randomized controlled study. *World Psychiatry* 2009;**8**(Suppl. 1):198	7
10.	Britton WB, Haynes PL, Fridel KW, Bootzin RR. Polysomnographic and subjective profiles of sleep continuity before and after mindfulness-based cognitive therapy in partially remitted depression. *Psychosom Med* 2010;**72**:539–48	6
11.	Brown RA, Lewinsohn PM. A psychoeducational approach to the treatment of depression: comparison of group, individual, and minimal contact procedures. *J Consult Clin Psychol* 1984;**52**:774–83	2
12.	Carreira K, Miller MD, Frank E, Houck PR, Morse JQ, Dew MA, *et al.* A controlled evaluation of monthly maintenance interpersonal psychotherapy in late-life depression with varying levels of cognitive function. *Int J Geriatr Psychiatry* 2008;**23**:1110–13	6
13.	Carvalho M, Estevens D, Guete-Tur O. Efficacy of cognitive-behavioral therapy for the treatment of recurrent depression in adults. *Eur Psychiatry* 2010;**25**(Suppl. 1):1042	6

Study		Reason
14.	Checkley S. *The efficacy of cognitive therapy when added to drug therapy for recurrent and pharmacotherapy-resistant depression – a pilot study*. National Research Register Archive, National Institute for Health Research; 1999. URL: www.nihr.ac.uk/Profiles/NRR.aspx?Publication_ID=N0042002867 (cited 3 November 2010)	7
15.	Clark DM, Layard R, Smithies R, Richards DA, Suckling R, Wright B. Improving access to psychological therapy: initial evaluation of two UK demonstration sites. *Behav Res Ther* 2009;**47**:910–20	2
16.	Clarke G, Eubanks D, Reid E, Kelleher C, O'Connor E, DeBar LL, *et al.* Overcoming Depression on the Internet (ODIN) (2): a randomized trial of a self-help depression skills program with reminders. *J Med Internet Res* 2005;**7**:e16	3
17.	Clarke G, Reid E, Eubanks D, O'Connor E, DeBar LL, Kelleher C, *et al.* Overcoming Depression on the Internet (ODIN): a randomized controlled trial of an Internet depression skills intervention program. *J Med Internet Res* 2002;**4**:e14	3
18.	Clarke GN, Rohde P, Lewinsohn PM, Hops H, Seeley JR. Cognitive-behavioral treatment of adolescent depression: efficacy of acute group treatment and booster sessions. *J Am Acad Child Adolesc Psychiatry* 1999;**38**:272–9	3
19.	Coelho HF, Canter PH, Ernst E. Mindfulness-based cognitive therapy: evaluating current evidence and informing future research. *J Consult Clin Psychol* 2007;**75**:1000–5	5
20.	College voor zorgverzekeringen. *Cognitive self therapy in patients with chronic-repeating depressive or panic disorders*. Diemen: College voor zorgverzekeringen; 2005	7
21.	Conradi HJ, de Jonge P, Ormel J. Cognitive-behavioural therapy v. usual care in recurrent depression. *Br J Psychiatry* 2008;**193**:505–6	3
22.	Cuijpers P, van Lammeren P. Secondary prevention of depressive symptoms in elderly inhabitants of residential homes. *Int J Geriatr Psychiatry* 2001;**16**:702–8	2
23.	D'Ambrosio A, Quartucci R, Morrone G, Vacca L. [Cognitive therapy as prophylaxis of depressive relapse]. *Neurol Psichiatr Sci Um* 1990;**10**:643–9	5
24.	Dimidjian S, Davis KJ. Newer variations of cognitive-behavioral therapy: behavioral activation and mindfulness-based cognitive therapy. *Curr Psychiatry Rep* 2009;**11**:453–8	5
25.	Dobson KS, Hollon SD, Dimidjian S, Schmaling KB, Kohlenberg RJ, Gallop RJ, *et al.* Randomized trial of behavioral activation, cognitive therapy, and antidepressant medication in the prevention of relapse and recurrence in major depression. *J Consult Clin Psychol* 2008;**76**:468–77	5
26.	Dombrovski AY, Lenze EJ, Dew MA, Mulsant BH, Pollock BG, Houck PR, *et al.* Maintenance treatment for old-age depression preserves health-related quality of life: a randomized, controlled trial of paroxetine and interpersonal psychotherapy. *J Am Geriatr Soc* 2007;**55**:1325–32	6
27.	Fava GA, Grandi S, Zielezny M, Canestrari R, Morphy MA. Cognitive behavioral treatment of residual symptoms in primary major depressive disorder. *Am J Psychiatry* 1994;**151**:1295–9	6
28.	Fava GA, Grandi S, Zielezny M, Rafanelli C, Canestrari R. Four-year outcome for cognitive behavioral treatment of residual symptoms in major depression. *Am J Psychiatry* 1996;**153**:945–7	6
29.	Fava GA, Rafanelli C, Grandi S, Canestrari R, Morphy MA. Six-year outcome for cognitive behavioral treatment of residual symptoms in major depression. *Am J Psychiatry* 1998;**155**:1443–5	6
30.	Fava GA, Ruini C, Fabbri S. Well-being therapy and modified cognitive approaches for relapse prevention in depression. *J Affect Disord* 2002;**68**:91	5
31.	Fava M, Kaji J. Continuation and maintenance treatments of major depressive disorder. *Psychiatr Ann* 1994;**24**:281–90	2
32.	Foley D, Baille A, Renner P. *CBT plus mindfulness for depression and anxiety outside model programs: increased treatment gains? Decreased relapse rates?* 29th Australian Association for Cognitive and Behaviour Therapy Annual Conference, Manly, Sydney, 18–23 October 2006. p. 43	7
33.	Frank E, Kupfer DJ. Maintenance treatment of recurrent unipolar depression: pharmacology and psychotherapy. *Adv Biochem Psychopharmacol* 1985;**40**:139–51	4
34.	Friedberg MW, Mindfulness-based cognitive therapy: a potential new alternative to medication for recurrent depression. *J Clin Outcomes Manag* 2009;**16**:63–64	5
35.	Gellatly J, Bower P, Hennessy S, Richards D, Gilbody S, Lovell K. What makes self-help interventions effective in the management of depressive symptoms? Meta-analysis and meta-regression. *Psychol Med* 2007;**37**:1217–28	2
36.	Gervasoni N, Legendre-Simon P, Aubry J-M, Gex-Fabry M, Bertschy G, Bondolfi G. Early telephone intervention for psychiatric outpatients starting antidepressant treatment. *Nord J Psychiatry* 2010;**64**:265–7	2
37.	Glasman D, Finlay WML, Brock D. Becoming a self-therapist: using cognitive-behavioural therapy for recurrent depression and/or dysthymia after completing therapy. *Psychol Psychother* 2004;**77**:335–51	5
38.	Golkaramnay V, Bauer S, Haug S, Wolf M, Kordy H. The exploration of the effectiveness of group therapy through an Internet chat as aftercare: a controlled naturalistic study. *Psychother Psychosom* 2007;**76**:219–25	7
39.	Gonzalez Gonzalez S, Fernandez Rodriguez C, Perez Rodriguez J, Amigo I. [Depression secondary prevention in primary care.] *Psicothema* 2006;**18**:471–7	3

Study		Reason
40.	Gonzalez Gonzalez S, Fernandez Rodriguez C, Perez Rodriguez J, Amigo I. Secondary prevention of depression in primary care. *Psychol Spain* 2007;**11**:24–32	2
41.	Gould RA, Clum GA. A meta-analysis of self-help treatment approaches. *Clin Psychol Rev* 1993;**13**:169–86	2
42.	Griffiths KM, Christensen H. Internet-based mental health programs: a powerful tool in the rural medical kit. *Aust J Rural Health* 2007;**15**:81–7	2
43.	Hautzinger M. Relapse prevention in recurrent depression. *J Affect Disord* 2010;**122**(Suppl. 1):35	6
44.	Hick SF, Chan L. Mindfulness-based cognitive therapy for depression: effectiveness and limitations. *Soc Work Ment Health* 2010;**8**:225–37	2
45.	Hollon SD, DeRubeis RJ, Shelton RC, Amsterdam JD, Salomon RM, O'Reardon JP, *et al.* Prevention of relapse following cognitive therapy vs medications in moderate to severe depression. *Arch Gen Psychiatry* 2005;**62**:417–22	6
46.	Hotopf M. Cognitive behaviour therapy reduced relapses in recurrent major depressive disorder. *Evid Based Med* 2005;**10**:82	5
47.	Jamison C, Scogin F. The outcome of cognitive bibliotherapy with depressed adults. *J Consult Clin Psychol* 1995;**63**:644–50	3
48.	Jarrett RB, Basco MR, Risser R, Ramanan J, Marwill M, Kraft D, *et al.* Is there a role for continuation phase cognitive therapy for depressed outpatients? *J Consult Clin Psychol* 1998;**66**:1036–40	5
49.	Jarrett RB, Kraft D, Doyle J, Foster BM, Eaves GG, Silver PC. Preventing recurrent depression using cognitive therapy with and without a continuation phase: a randomized clinical trial. *Arch Gen Psychiatry* 2001;**58**:381–8	6
50.	Jarrett RB, Kraft D, Schaffer M, Witt-Browder A, Risser R, Atkins DH, *et al.* Reducing relapse in depressed outpatients with atypical features: a pilot study. *Psychother Psychosom* 2000;**69**:232–9	6
51.	Jarrett RB, Thase ME. Comparative efficacy and durability of continuation phase cognitive therapy for preventing recurrent depression: design of a double-blinded, fluoxetine- and pill placebo-controlled, randomized trial with 2-year follow-up. *Contemp Clin Trials* 2010;**31**:355–77	6
52.	Jarrett RB, Vittengl JR, Clark LA. How much cognitive therapy, for which patients, will prevent depressive relapse? *J Affect Disord* 2008;**111**:185–92	6
53.	Kaltenthaler E, Brazier J, De Nigris E, Tumur I, Ferriter M, Beverley C, *et al.* Computerised cognitive behaviour therapy for depression and anxiety update: a systematic review and economic evaluation. *Health Technol Assess* 2006;**10**(33)	2
54.	Kashner TM, Henley SS, Golden RM, Rush AJ, Jarrett RB. Assessing the preventive effects of cognitive therapy following relief of depression: a methodological innovation. *J Affect Disord* 2007;**104**:251–61	6
55.	Kennard BD, Emslie GJ, Mayes TL, Nightingale-Teresi J, Nakonezny PA, Hughes JL, *et al.* Cognitive-behavioral therapy to prevent relapse in pediatric responders to pharmacotherapy for major depressive disorder. *J Am Acad Child Adolesc Psychiatry* 2008;**47**:1395–404	6
56.	Kingston T, Dooley B, Bates A, Lawlor E, Malone K. Mindfulness-based cognitive therapy for residual depressive symptoms. *Psychol Psychother* 2007;**80**:193–203	3
57.	Klein DN, Santiago NJ, Vivian D, Blalock JA, Kocsis JH, Markowitz JC, *et al.* Cognitive-behavioral analysis system of psychotherapy as a maintenance treatment for chronic depression. *J Consult Clin Psychol* 2004;**72**:681–8	6
58.	Kocsis JH, Gelenberg AJ, Rothbaum BO, Klein DN, Trivedi MH, Manber R, *et al.* Cognitive behavioral analysis system of psychotherapy and brief supportive psychotherapy for augmentation of antidepressant nonresponse in chronic depression: the REVAMP trial. *Arch Gen Psychiatry* 2009;**66**:1178–88	3
59.	Kroll L, Harrington R, Jayson D, Fraser J, Gowers S. Pilot study of continuation cognitive-behavioral therapy for major depression in adolescent psychiatric patients. *J Am Acad Child Adolesc Psychiatry* 1996;**35**:1156–61	5
60.	Kuehner C. An evaluation of the 'Coping with Depression Course' for relapse prevention with unipolar depressed patients. *Psychother Psychosom* 2005;**74**:254–9	5
61.	Laske C, Banschbach S, Stransky E, Bosch S, Straten G, Machann J, *et al.* Exercise-induced normalization of decreased BDNF serum concentration in elderly women with remitted major depression. *Int J Neuropsychopharmacol* 2010;**13**:595–602	2
62.	Learmonth D, Trosh J, Rai S, Sewell J, Cavanagh K. The role of computer-aided psychotherapy within an NHS CBT specialist service. *Counsell Psychother Res J* 2008;**8**:117–23	2
63.	Lenz G. Cognitive-psychoeducative group-therapy vs TAU with additional information group: a randomized controlled study. *Eur Psychiatry* 2010;**25**(Suppl. 1):19	4
64.	Lin EHB, Katon WJ, Simon GE, Von Korff M, Bush TM, Walker EA, *et al.* Low-intensity treatment of depression in primary care: is it problematic? *Gen Hosp Psychiatry* 2000;**22**:78–83	5
65.	Mahalik JR, Kivlighan DM. Self-help treatment for depression: who succeeds? *J Couns Psychol* 1988;**35**:237–42	2
66.	Maneeton N, Thongkam A, Maneeton B. Cognitive-behavioral therapy added to fluoxetine in major depressive disorder after 4 weeks of fluoxetine-treatment: 16-week open label study. *J Med Assoc Thai* 2010;**93**:337–42	3
67.	Marrs RW. A meta-analysis of bibliotherapy studies. *Am J Community Psychol* 1995;**23**:843–70	5

Study	Reason
68. Mathew KL, Whitford HS, Kenny MA, Denson LA. The long-term effects of mindfulness-based cognitive therapy as a relapse prevention treatment for major depressive disorder. *Behav Cogn Psychother* 2010;**38**:561–76	2
69. Michalak J, Heidenreich T, Meibert P, Schulte D. Mindfulness predicts relapse/recurrence in major depressive disorder after mindfulness-based cognitive therapy. *J Nerv Ment Dis* 2008;**196**:630–3	5
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Appendix 3

Data extraction tables

Completed studies

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Bockting[46] *Year* 2005 *Country* Netherlands *Full publication?* Yes *Study design* RCT *Linked publications* Bockting 2004,[47] 2006,[48] 2008,[49] 2009[50]	*Inclusion criteria* Patients who have suffered at least two major depressive episodes (DSM-IV; SCID) in last 5 years; currently in remission between 10 weeks to 2 years; and having < 10 current score on HRSD *Exclusion criteria* Current mania or hypomania; history of bipolar of psychotic disorder; organic brain damage; alcohol or drug misuse; predominant anxiety disorder; recent ECT; recent or current cognitive therapy; recent or current psychotherapy more than twice per month *Previous treatment(s) received* Not stated *Setting* 69% participants recruited through media announcements, 31% from psychiatric centres *No. included at baseline* 187 *No. lost to follow-up* 22/187 *ITT analysis?* Partial. All patients who started treatment (172/187) were accounted for in 'ITT'. Dropouts prior to first treatment were not	*Name of intervention* Brief cognitive therapy + TAU *Structured content?* Treatment manual, homework and review of homework with regular supervision. Sessions were audiotaped and any adherence/competence issues raised before the next session *Delivered by?* Specifically trained (16 hours) cognitive behavioural therapists (> 5 years prior training) *Group intervention?* Yes *No. of patients per group (if applicable)* 7–12 (mean 8) *No. of sessions* 8 *Session duration and frequency* 2 hours weekly *Total intervention duration* 8 weeks *Concurrent treatments* ~50% participants in each group received concurrent antidepressant medication	*Comparator name* TAU *Comparator details* Standard treatment (including no treatment) as typically provided by the referring agencies. There were no restrictions on the use of pharmacotherapy throughout the study or follow-up periods *Concurrent treatments* ~50% participants in each group received concurrent antidepressant medication	*Definition of relapse/ recurrence* Kaplan–Meier cumulative relapse/recurrence rates. Assessed using SCID-I at 3, 12, 24 and 66 months. Severity of relapse scored as low (< 6 symptoms), medium (6–7) or high (8–9) *Other outcomes* Severity of depressive residual symptoms (measured using HRSD); dysfunctional attitudes (measured using DAS); stress – daily hassles (measured using EPCL); Stress – Life events, (measured using Negative Life Events Questionnaire) – medication and other psychological treatment	*Intervention relapse rate* Cumulative rate at 24 months: Patients with ≥ 5 previous episodes 46% (53% in abstract) Patients with < 5 previous episodes 63% (69% in abstract) Cumulative rate at 66 months: Patients with ≥ 4 previous episodes 75% (99% CI 61 to 86) Patients with < 4 previous episodes 82% (99% CI 67 to 93) *Comparator relapse rate* Cumulative rate at 24 months: Patients with ≥ 5 previous episodes 72% (80% in abstract) Patients with < 5 previous episodes 59% (64% in abstract) Cumulative rate at 66 months: Patients with ≥ 4 previous episodes 95% (99% CI 83 to 100) Patients with < 4 previous episodes 79% (99% CI 64 to 90) p-*value for difference between rates* 'Significant' for ≥ 5 previous episodes group, but not < 5 episodes group at 24 months

DAS, Dysfunctional Attitude; ECT, electroconvulsive therapy; EPCL, Everyday Problem Checklist; HRSD, Hamilton Rating Scale for Depression; SCID-I, Structured Clinical Interview for DSM-IV Axis I Disorders.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Bondolfi[51] *Year* 2010 *Country* Switzerland *Full publication?* Yes *Study design* RCT	*Inclusion criteria* Patients aged 18–65 years with a history of recurrent major depression (DSM-IV; assessed with SCID); three or more past depressive episodes (two episodes in the past 5 years and at least one episode in the past 2 years); remission for ≥ 3 months at time of enrolment. MADRS ≤ 13. History of antidepressant treatment, but currently off medication for ≥ 3 months before enrolment *Exclusion criteria* History of schizophrenia or schizoaffective disorder, current substance abuse, eating disorder, or obsessive compulsive disorder, organic mental disorder, pervasive developmental disorder or borderline personality disorder; dysthymia with onset before age 20 years; more than four sessions of CBT ever; current psychotherapy or counselling more than once per month; current practice of meditation > once per week or yoga > twice per week *Previous treatment(s) received* Antidepressants (no details given) *Setting* Patients recruited through media announcements and mailings to psychiatrists and GPs in the French-speaking region of Switzerland. Study conducted at Geneva and Lausanne University Hospitals *No. included at baseline* 60 (31 MBCT; 29 TAU) *No. lost to follow-up* Five (55 patients with complete data at 14-month relapse or recurrence) *ITT analysis?* ITT and PP presented	*Name of intervention* MBCT *Structured content?* French translation of MBCT manual used. Participants given two CDs containing the standard practices proposed in the programme (body scan, sitting meditation, mindful movements, and 3-minute breathing space). Trial groups monitored for adherence to the MBCT protocol by audiotaping sessions *Delivered by?* Three senior CBT psychologists and a senior CBT psychiatrist. All had undergone at least one training by one of the developers of MBCT; two instructors attended 9-day professional training in mindfulness-based stress reduction. They had all led three specialised MBCT groups prior to this study *Group intervention?* Yes *No. of patients per group (if applicable)* Not stated *No. of sessions* Eight, plus four booster sessions ≥ 4 MBCT sessions considered minimal dose *Session duration and frequency* Weekly 2-hour sessions. Booster sessions every 3 months (duration not stated) *Total intervention duration* 8 weeks (excluding booster sessions) plus 52 weeks' follow-up *Concurrent treatments* Not stated	*Comparator name* Treatment at usual *Comparator details* TAU participants were told to seek help from their family doctor or other sources as they normally would if they had worsening symptoms or other difficulties *Concurrent treatments* Not stated	*Definition of relapse/ recurrence* Occurrence of relapse or recurrence meeting DSM-IV criteria for major depressive episode. Patients interviewed using SCID at baseline, end of interventions (2 months) and follow-up (5, 8, 11 and 14 months) *Other outcomes* Time to relapse (no. days from enrolment to relapse). Severity of depressive symptoms measured with the MADRS. Frequency of mindfulness practices measured with an ad hoc questionnaire (details provided)	*Intervention relapse rate* 14 months ITT 9/31 (29%), PP 9/27 (33%), median time to relapse 204 days *Comparator relapse rate* 14 months ITT 10/29 (34%), PP 10/28 (36%), median time to relapse 69 days (range 15–191 days) p-*value for difference between rates* 14 months $p = 0.78$ (ITT), $p = 1.0$ (PP), $p = 0.06$ (time to relapse) *Relative risk/odds ratio/hazard ratio* Cox regression suggested no significant difference between the intervention and control groups (hazard ratio not reported) $p = 0.58$ (ITT), $p = 0.60$ (PP)

PP, per-protocol.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Fava[52] *Year* 1998 *Country* Italy *Full publication?* Yes *Study design* RCT *Linked publication* Fava 2004[53]	*Inclusion criteria* Diagnoses were established using the Schedule for Affective Disorders and Schizophrenia. Participants with a current diagnosis of primary major depressive disorder according to the RDC for a Selected Group of Functional Disorders; three or more previous episodes of depression, with the immediately preceding episode being no more than 2.5 years before the onset of the present episode; minimum 10-week remission according to the RDC between the index episode and immediately preceding episode; minimum global severity score of 7 for the current episode of depression. Only patients rated as 'better' or 'much better' after antidepressant drug treatment according to a global scale of improvement and as being in full remission were included. Also no evidence of depressed mood according to a modified version of Paykel's CID *Exclusion criteria* Participants with history of manic, hypomanic or cyclothymic features; history of drug or alcohol abuse or personality disorder (DSM-IV) or antecedent dysthymia; active medical illness *Previous treatment(s) received* All participants received 3–5 months of full-dose antidepressants *Setting* Patients referred to the Affective Disorders Programme of the University of Bologna *No. included at baseline* 45 *No. lost to follow-up* Five *ITT analysis?* 40/45 patients randomised were analysed. The remaining three patients were excluded because their antidepressant drugs could not be tapered	*Name of intervention* Pharmacotherapy and CBT *Structured content?* CBT conducted as described by Beck *et al.*[104] Main components included: CBT of residual symptoms of major depression; lifestyle modification; well-being therapy. Four sessions were taped to check integrity *Delivered by?* Psychiatrist, experienced in CBT *Group intervention?* No *No. of sessions* 10 *Session duration and frequency* 30 minutes every other week *Total intervention duration* 20 weeks *Concurrent treatments* Pharmacotherapy, taped over time	*Comparator name* Pharmacotherapy and clinical management *Comparator details* Clinical management consisted of monitoring medication tapering, reviewing patient's clinical status, provide advice and support if necessary *Concurrent treatments* Pharmacotherapy, tapered over time	*Definition of relapse/ recurrence* The occurrence of an RDC-defined episode of major depression at 3, 6, 9, 12, 15, 18, 21 and 24 months *Other outcomes* Time until relapse Symptoms of depression as measured by CID at 3, 6, 9, 12, 15, 18, 21 and 24 months	*Intervention relapse rate* 2 years: 5/20 (25%) 6 years: 8/20 (40%) *Comparator relapse rate* 2 years: 16/20 (80%) 6 years: 18/20 (90%) p-*value for difference between rates* 6 years: $p = 0.001$

CID, Clinical Interview for Depression; RDC, Research Diagnostic Criteria.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Godfrin[54] *Year* 2010 *Country* Belgium *Full publication?* Yes *Study design* RCT	*Inclusion criteria* Patients aged ≥ 18 years with a history of at least three previous episodes of depression according to DSM-IV-R criteria, the end of the last episode being at least 8 weeks prior to recruitment. Participants should not suffer from a current depressive episode according to the DSM-IV-R criteria, scored < 14 on the HRSD, and from a well-defined geographic area *Exclusion criteria* Current depression or dysthymia according to DSM-IV-R criteria; substance use disorder; obsessive–compulsive disorder; bipolar disorder; acute psychosis; schizophrenia/schizoaffective disorder; cognitive disorder; organic mental disorder; pervasive developmental disorder; mental retardation; primary diagnosis of axis-II disorder/risk of suicide; extended experience of Zen or Vipassana (mindfulness) meditation; physical problems hampering participation; or concurrent psychiatric consultation (> 1 consultation per 3–4 weeks), intensive psychotherapy, or other forms of meditation Previous treatment(s) received: 87/106 (82.1%) received psychotherapy/counselling 81/106 (76.4%) received antidepressant medication 23/106 (21.7%) were hospitalised 88/106 (83%) visited GP Rates were similar between intervention and control groups	*Name of intervention* MBCT *Structured content?* Manualised class-based skills training programme, based on mindfulness-based stress reduction and CBT. The intervention aims at increasing the capacity to attend, non-judgementally and moment by moment to patterns of thoughts, bodily sensations and feelings. Participants were asked to complete daily homework exercises (including meditation practices and exercises to integrate the awareness skills into daily life) for at least 45 minutes per day, 6 days per week. The treatment protocol was checked to ensure it delivered the essential elements of MBCT *Delivered by?* Medical practitioner with extensive experience of MBCT *Group intervention?* Yes *No. of patients per group (if applicable)* 12–15 *No. of sessions* Eight *Session duration and frequency* 2 hours and 45 minutes per week *Total intervention duration* 8 weeks *Concurrent treatments* Baseline: 29/52 (58.0%); depression-related visits to GP 28/52 (53.8%); treatment by psychiatrist 14/52 (26.9%); treatment by psychologist 38/52 (73.1%); antidepressant medication 2/52 (4.2%); hospitalisation because of psychic complaints	*Comparator name* TAU *Comparator details* Waiting list control *Concurrent treatments* Baseline: 37/54 (69.8%); depression-related visits to GP 16/54 (30.2%); treatment by psychiatrist 7/54 (13.2%); treatment by psychologist 33/54 (61.1%); antidepressant medication At 14 months: 35/54 (77.8%); depression-related visits to GP 12/54 (26.7%); treatment by psychiatrist 6/54 (13.3%); treatment by psychologist 28/54 (62.2%); antidepressant medication Some data were missed so different denominators were used for calculating concurrent treatment at 14 months	*Definition of relapse/recurrence* Relapse/recurrence (DSM-IV-R criteria for major depressive episode, using SCID-I interview) *Time to relapse/recurrence since recruitment* Reported at baseline, 2, 8 and 14 months *Other outcomes* Level of depressive symptoms (HRSD and BDI) Current mood states Self-reported QoL (QLDS) Reported at baseline, 2, 8 and 14 months	*Intervention relapse rate* 14 months *Relapse rate* 12/40 (30%) *Mean time to first relapse* 53.7 weeks *Comparator relapse rate* 14 months *Relapse rate* 32/47 (68%) *Mean time to first relapse* 39.5 weeks p-*value for difference between rates* $p < 0.0005$ relapse rate, $p < 0.001$ mean time to first relapse *Relative risk/odds ratio/hazard ratio* Significant reduction in hazard of relapse/recurrence for intervention group Hazard ratio = 0.23 (95% CI 0.09 to 0.63), $p < 0.01$

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
	Setting Outpatients recruited through advertisement, word of mouth or referral *No. included at baseline* 106 (52 MBCT; 54 TAU) *No. lost to follow-up* 30 (18 MBCT; 12 TAU) *ITT analysis?* Yes	At 14 months: 24/52 (63.2%); depression-related visits to GP 20/52 (51.3%); treatment by psychiatrist 11/52 (28.2); treatment by psychologist 25/52 (64.1%); antidepressant medication 1/52 (2.6%); hospitalisation because of psychic complaints. Some data were missed so different denominators were used for calculating concurrent treatment at 14 months			

HRSD, Hamilton Rating Scale for Depression; QLDS, Quality of Life in Depression Scale.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Hepburn[55] *Year* 2009 *Country* UK *Full publication?* Yes *Study design* RCT	*Inclusion criteria* Patients aged 18–65 years; experienced both depression (minimum of one episode) and suicidality (attempt or severe ideation); and in remission or recovery. No participant had current depression according to diagnostic interview at first assessment. Participants were interviewed with the mini international neuropsychiatric interview *Exclusion criteria* Not fluent in English; receiving CBT without subsequent depressive relapse; symptom of substance misuse; psychosis or mania in the last 6 months prior to the study *Previous treatment(s) received* Not stated; groups did not differ significantly in rates of past hospitalisation or psychotherapy *Setting* Clinician referrals or self-referrals from community advertisements *No. included at baseline* 68 patients (33 MBCT; 35 control) *No. lost to follow-up* 25 (13 MBCT; 12 control) *ITT analysis?* Not stated	*Name of intervention* MBCT *Structured content?* MBCT group received the new programme for suicidality consisting of weekly classes and daily homework. No details of class content were given. Daily homework (maximum 1 hour) included formal audio-guided meditation, and informal practices integrating mindfulness into everyday life *Delivered by?* Experienced CBT and mindfulness-based therapists *Group intervention?* Yes *No. of patients per group (if applicable)* Up to 17 per class *No. of sessions* Eight classes and one all-day session. Attending fewer than four classes considered non-completers *Session duration and frequency* 2-hour classes every week and one all-day session (6 hours) *Total intervention duration* Not stated *Concurrent treatments* Not stated	*Comparator name* Waiting list control *Comparator details* Participants continued with TAU (including medication), seeking help from GPs or other sources if participants encountered difficulties. MBCT was offered when the study was complete *Concurrent treatments* Not stated	*Definition of relapse/ recurrence* Depression symptoms measured using BDI *Other outcomes* Self-reported thought suppression measured by the suppression subscale of the WBSI, with an additional question about short-term attempts at thought suppression in the last week	*Intervention relapse rate* Pre-intervention BDI = 15.62 (SD 13.84) and post-intervention BDI = 8.67 (SD 12.00) Pre-intervention thought suppression: Past week thought suppression = 3.70 (SD 1.30) and post-intervention past week thought suppression = 2.60 (SD 11.42) *Comparator relapse rate* Pre-intervention BDI = 12.83 (SD 9.59) and post-intervention BDI = 12.25 (SD 11.14) Pre-intervention thought suppression: Past week thought suppression= 3.58 (SD 1.59) and post-intervention past week thought suppression= 4.12 (SD 1.42) p-*value for difference between rates* For BDI: MBCT; $p < 0.01$ (post minus pre-pre-effect size) TAU; $p = 0.75$ (post minus pre-pre-effect size) For WBSI: MBCT; no statistically significant difference (post minus pre-intervention WBSI) TAU; no statistically significant difference (post minus pre-intervention WBSI) *Relative risk/odds ratio/hazard ratio* Not reported

WBSI, White Bear Suppression Inventory.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Howell[56] *Year* 2008 *Country* Australia *Full publication?* Yes *Study design* Cluster RCT; randomisation by practice	*Inclusion criteria* Patients aged 18 years or older; met diagnostic criteria for a depressive disorder according to the DSM-IV; availability to be followed up for 12 months; and ability to give informed consent. Not all patients were in remission, as patients were assessed on severity rather than using a cut-off) *Exclusion criteria* Undergoing a separate treatment programme; suffering from psychoses; unable to complete the English-language questionnaires or interview *Setting* GP setting (both urban and rural) *No. included at baseline* 110 patients (62 KBA; 48 usual care) 23 practices (45 GPs) ■ 12 (22 GPs) KBA ■ 11 (23 GPs) usual care *No. lost to follow-up* 16 (15 KBA; 1 usual care) *ITT analysis?* Yes	*Name of intervention* KBA *Structured content?* The KBA consisted of GP training manual or patient manual and relaxation CD; 20 hours of training on depression, the study protocol, assessment tools and skills. KBA involves a multimodal, skilled-based approach and utilises a range of evidence-based psychosocial strategies, such as problem-solving, which can be tailored to the individual patient. The programme incorporates 10 steps (details given) and started once the patient's depression has been stabilised by initial treatment *Delivered by?* GPs who completed 20 hours of training conducted by GP and a psychologist. The GPs' training kit contained information on depression, the study protocol, assessment tools, and skill training related to the KBA programme. GPs in the control group completed a 3-hour training session on the study protocol. A psychology graduate was trained to review case notes using an audit record, and was blinded to patients' group allocation *Group intervention?* No *No. of sessions* Mean no. of visits = 7 *Session duration and frequency* Typical visit around 30 minutes *Total intervention duration* Not stated *Concurrent treatments* Usual medication as clinically indicated	*Comparator name* Usual care *Comparator details* Usual medication *Concurrent treatments*	*Definition of relapse/recurrence* A 50% relative reduction of depression relapse, assessed with DASS. Relapse was assessed retrospectively through blinded case note review. Evidence of depression relapse sought from the notes included increased symptoms of depression, medication changes, hospital admissions, new symptoms or suicidality *Other outcomes* 1. Reduction in severity of depression, assessed with the self-rating DASS 2. QoL, assessed with the WHOQOL-BREF 3. Acceptability of KBA. Outcomes were assessed at baseline, 3 and 12 months	*Intervention relapse rate* 13/62 (46.4%) at 12 months *Comparator relapse rate* 15/48 (53.6%) at 12 months p-*value for difference between rates* $p = 0.23$ *Relative risk/odds ratio/hazard ratio* Relative risk = 0.77 (95% CI 0.50 to 2.05)

DASS, Depression Anxiety Stress Scales; KBA, 'Keeping the Blues Away'; WHOQOL-BREF, World Health Organization Quality of Life scale.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Katon[45] *Year* 2001 *Country* USA *Full publication?* Yes *Study design* RCT *Linked publications* Lin 2003,[57] Ludman 2000,[58] 2003[59]	*Inclusion criteria* Patients aged 18–80 years who had recovered from an episode of depression or anxiety following a new antidepressant prescription; at high risk of relapse as determined by SCID for DSM-III-R; fewer than four major depressive symptoms and a history of three or more episodes of major depression or dysthymia, or four residual depressive symptoms but with a mean SCL-20 depression score of < 1.0 and a history of major depression/ dysthymia. No prior prescriptions 120 days prior to baseline assessment *Exclusion criteria* Score of 2 or more on CAGE alcohol screening questionnaire; pregnant or nursing; planning to disenrol from HMO in next 12 months; currently seeing a psychiatrist; limited command of the English language; recent use of lithium or antipsychotic medication *Previous treatment(s) received* Not stated *Setting* Four primary care clinics in western Washington (with 88,000 patients and 73 family physicians) *No. included at baseline* 386 *No. lost to follow-up* 155/194 (79.9%) of intervention patients completed all three telephone follow-ups. Details not available for usual-care arm *ITT analysis?* Unclear	*Name of intervention* Multifaceted relapse prevention programme *Structured content?* Patient education, face-to-face and telephone follow-up sessions at 2, 6, 10 and 12 months and personalised mailings (showing BDI scores over time, plus symptom and medication adherence checklists). Self-treatment intervention was designed to build on principles of motivational interviewing and cognitive behavioural theories of relapse prevention. Aim to improve adherence to medication, increase awareness of prodromal symptoms and develop proactive steps, increase daily use of depression treatment techniques. Ultimate aim was to have each patient completed a personal relapse prevention plan *Delivered by?* Depression specialists (psychologist, nurse practitioner with Master's degree in psychosocial nursing, social worker). All received a manual and training with the trial investigators *Group intervention?* No, individualised No. of patients per group (if applicable) *No. randomised* 386 (194 intervention; 192 usual care). At 12 months' follow-up: 10.3% of intervention group and 20.8% of usual-care group missed interviews. 315 (82%) completed all follow-up assessments and 377 (98%) remained enrolled throughout the follow-up period *No. of sessions* Two face-to-face visits, three telephone visits, four personalised mailings *Session duration and frequency* Two face-to-face sessions with depression specialists were 90 minutes (first session) and 60 minutes (follow-up). Telephone visits were scheduled at 1, 4 and 8.5 months after second face-to-face session (duration not reported). Personalised mailings were scheduled at 2, 6, 10 and 12 months. Specialist received pharmacy data and alerted physician and telephoned patients when feedback indicated they were symptomatic and/or had discontinued medication *Total intervention duration* 12 months *Concurrent treatments* Participants were encouraged to adhere to their antidepressant medication plan. Patients could also self-refer to mental health services	*Comparator name* Usual care *Comparator details* Typically prescription for antidepressant medication, two to four visits with family physician over first 6 months of treatment and option to refer to mental health services	*Definition of relapse/ recurrence* Episode of depression defined by SCID at 3, 6, 9 or 12 months; or had an interval episode based on the Longitudinal Interval Follow-up Evaluation *Other outcomes* No. of primary care visits Medication adherence (% antidepressant refills; antidepressant dose adequacy). Depressive symptoms (average SCL-20 score)	*Intervention relapse rate* 35% *Comparator relapse rate* 34.6% p-*value for difference between rates* Not statistically significant *Relative risk/ odds ratio/ hazard ratio* Not reported

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Kuhner[61] *Year* 1996 *Country* Germany *Full publication?* Yes *Study design* Non-RCT with concurrent control group *Linked publication* Kuhner 1994[62]	*Inclusion criteria* 18- to 60-year-olds formerly depressed inpatients 1 or 7 months after discharge and patients recruited directly through the psychiatric outpatient department; ICD-9 diagnosis of endogenous, neurotic or reactive depression, major depressive episode according to DSM-III, or score ≥ 25 on IDD *Exclusion criteria* Current or past organic, schizophrenic, paranoid or schizoaffective disorders, bipolar disorders, primary substance abuse; mental retardation; patients undergoing individual therapy; living too far; shift workers *Previous treatment(s) received* 69% received antidepressants *Setting* Inpatients at the psychiatric clinic of the Central Institute of Mental Health at the University of Mannheim *No. included at baseline* 42 not depressed at baseline *No. lost to follow-up* Unclear *ITT analysis?* Unclear	*Name of intervention* CWD course *Structured content?* Same as cognitive behavioural group intervention: highly structured, based on a multimodal psychoeducational approach. Addresses specific target behaviours assumed to counteract the development and maintenance of depression. Weekly instructor-supervised meetings to assure standardisation of procedures *Delivered by?* Clinical psychologists and psychiatrists *Group intervention?* Yes *No. of patients per group (if applicable)* 4–8 *No. of sessions* 16 *Session duration and frequency* 90 minutes to 2 hours weekly, with four additional sessions after the fourth, sixth, eighth and 12th weeks *Total intervention duration* 12 weeks *Concurrent treatments* Unclear	*Comparator name* No CWD intervention *Comparator details* Participants who refused CWD, who were >7 months after discharge or did not meet the inclusion criteria for CWD *Concurrent treatments* Unclear	*Definition of relapse/ recurrence* Relapse (MDE according to DSM-III-R) *Other outcomes* None	*Intervention relapse rate* 6 months: 3/21 (14%) *Comparator relapse rate* 6 months: 9/21 (43%) p-*value for difference between rates* $p<0.05$

ICD-9, *International Statistical Classification of Diseases and Related Health Problems*, Ninth Edition; IDD, Inventory to Diagnose Depression; MDE, major depressive episode.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Kuyken[63] *Year* 2008 *Country* UK *Full publication?* Yes *Study design* Parallel two-group RCT, stratified by symptomatic status (HRSD ≥ 8)	*Inclusion criteria* Patients aged 18 years or older; history of three or more previous depression episodes meeting the DSM criteria-IV; treated with therapeutic dose of antidepressants over the last 6 months; and currently in full or partial remission *Exclusion criteria* Comorbid diagnosis of current substance dependence; organic brain damage; current/past psychosis; bipolar disorder; persistent antisocial behaviour; persistent self-injury requiring clinical management/therapy; unable to engage with MBCT for physical, practical or other reasons (e.g. very disabling physical problem, unable to comprehend materials); and formal concurrent psychotherapy *Previous treatment(s) received* 30/123 patients received previous psychiatric treatment, specific therapies not stated *Setting* Primary care settings across a range of urban and rural locations in Devon, UK. Patients were identified from computerised practice databases *No. included at baseline* 123 (MBCT = 61; m-ADM = 62) *No. lost to follow-up* 8 (2 MBCT; 6 m-ADM) 19 (9 MBCT; 10 m-ADM) fell outside protocol (attended less than four sessions of MBCT, discontinued medication m-ADM) *ITT analysis?* Yes (PP analysis also undertaken)	*Name of intervention* MBCT and antidepressant tapering/discontinuation *Structured content?* Manualised MBCT, grouped-based skill training programme: session content included guided mindfulness practice; inquiry into patients' experience of these practices; review of weekly homework; and teaching and discussion of cognitive behavioural skills. Sessions were videotaped to monitor therapist competence and treatment adherence. Antidepressant tapering/discontinuation regimes determined by primary care physician and patients, with guideline information provided by study team *Delivered by?* Clinical psychologist or occupational therapist. Both had undergone training by one of the developers of MBCT, had run at least two supervised pilot groups and had an ongoing personal mindfulness practice. Therapist competence was adequately assessed *Group intervention?* Yes *No. of patients per group (if applicable)* 9–15 patients *No. of sessions* Eight sessions, plus four follow-up sessions (four or more sessions considered adequate dose) *Session duration and frequency* Weekly 2-hour sessions. Follow-up sessions (no details provided) *Total intervention duration* 8 weeks with follow-up sessions in the following 12 months *Concurrent treatments* Not stated	*Comparator name* Maintenance m-ADM *Comparator details* Patients managed according to standard clinical practice and the *British National Formulary*; therapeutic dose was required; physician required to meet patient regularly to review their medication treatment. Medication adherence monitored through self-report every 3 months, practice databases and MMAS *Concurrent treatments* Not stated	*Definition of relapse/recurrence* Time to relapse/recurrence, using SCID for retrospective assessment of previous 3 months. Relapse/recurrence defined as an episode meeting DSM-IV criteria for major depressive disorder; if considered marginal, a conservative position of no relapse was recorded. Once a judgement about relapse was made, the onset of relapse was dated from randomisation to the point at which criteria were met *Other outcomes* Severity of relapse/recurrence, assessed using DSM-IV every 3 months over 15 months. Duration of any relapse/recurrence (defined as period of time in months that a person met SCID criteria), and associated distress (rated by patients on a 1- to 100-point scale ranging from 0 (least distressing episode of depression ever experienced) to 100 (most distressing episode of depression ever experienced). Residual depressive symptoms, assessed by the observer-rated interviewer-administered 17-item version of the HRSD and 21-item self-reported BDI (BDI-II). QoL, assessed using the 26-item, self-report, short version of the WHOQOL-BREF. QoL was subjective and was assessed in four domains: physical, psychological, social and environmental. Economic evaluation looked at all hospital (inpatient, outpatient, emergency department) and community health and social services (primary care, social work, complementary therapies), plus productivity losses resulting from time off work due to illness. Economic data were collected at baseline and at 3-month intervals for up to 15 months post randomisation using the AD-SUS, with missing items added	*Intervention relapse rate* 29/61 (47%) in MBCT over the 15-month follow-up period 24/52 (46%) in the PP analysis *Comparator relapse rate* 37/62 (60%) over 15-month period (ITT analysis) 31/52 (60%) over 15-month period (PP analysis) p-*value for difference between rates* $p = 0.21$ for the ITT analysis $p = 0.07$ for the PP analysis *Relative risk/odds ratio/hazard ratio* Hazard ratio = 0.63 (95% CI 0.39 to 1.04) for the ITT analysis Hazard ratio = 0.59 (95% CI 0.34 to 1.00) for the PPT analysis

HRSD, Hamilton Rating Scale for Depression; MMAS, Morisky Medication Adherence Scale; PP, per-protocol; WHOQOL-BREF, World Health Organization Quality of Life scale.

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Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Ma[64] *Year* 2004 *Country* UK *Full publication?* Yes *Study design* RCT	*Inclusion criteria* Patients aged 18–65 years; a history of major recurrent depression (at least two episodes of major depressions within the past 5 years, one of which should have occurred within the past 2 years) in the absence of a history of mania and hypomania; meeting enhanced DSM-III-R; a history of treatment by a recognised antidepressant medication, but being off antidepressant medication and in recovery/remission at the time of baseline assessment and for at least the preceding 12 weeks; and scored < 10 on the 17-item HRSD at baseline *Exclusion criteria* History of schizophrenia or schizoaffective disorder; current substance abuse; current eating disorder or obsessive compulsive disorder; organic mental disorder, pervasive developmental delay, or borderline personality disorder; dysthymia before age 20 years; more than four lifetime sessions of CBT; and current psychotherapy or counselling more frequently than once per month *Previous treatment(s) received* 3% MBCT and 10% TAU had been hospitalised for depression 68% MBCT and 74% TAU received psychotherapy/counselling	*Name of intervention* MBCT *Structured content?* Manualised group-based MBCT training programme, including daily homework exercises (guided and unguided) during the treatment phase. This MBCT programme is based on integration of aspects of CBT for depression, with components of MBSR programme designed to teach patients skills that allow individual to disengage from habitual dysfunctional cognitive routines. MBCT sessions were videotaped or audiotaped with the patient's permission to allow monitoring of treatment *Delivered by?* Two experienced cognitive therapists; both had previously led at least two groups of recovered depressed patients through the MBCT programme *Group intervention?* Yes *No. of patients per group (if applicable)* Up to 12 patients *No. of sessions* Eight sessions (plus one initial individualised orientation session) *Session duration and frequency* 2 hours every week for 8 weeks	*Comparator name* TAU *Comparator details* Patients received their usual treatment and were instructed to seek help from their family doctor, or other sources, as they normally would, if they encountered symptomatic deterioration or other difficulties over the course of the study. Assessment was conducted every 3 months *Concurrent treatments* For patients who had reported two episodes of depression prior to the study ▪ ~36% had one or more depression-related visit to GP ▪ ~30% sought counselling, psychotherapy, or professional mental health support ▪ ~36% received medication for depression For patients who had reported three or more episodes of depression prior to the study ▪ ~33% had one or more depression-related visits to GP ▪ ~19% sought counselling, psychotherapy, or professional mental health support ▪ ~15% had other mental health contacts ▪ ~33% received medication for depression	*Definition of relapse/recurrence* An episode meeting DSM-IV criteria for major depressive disorder, assessed on the modelled Structured Clinical Interview for DSM-III-R. The assessment was done by a clinical psychologist blind to the patient's treatment condition *Other outcomes* Time to onset of relapse or recurrence of depression. The occurrence of a significant life event was evaluated for those patients experiencing relapse/recurrence	*Intervention relapse rate* Patients with a history of three or more episodes of depression: 10/28 (36%) Patients with a history of two episodes of depression: 4/8 (50%) from ITT and 1/4 (20%) from PP analysis *Comparator relapse rate* Patients with a history of three or more episodes of depression: 21/27 (78%) Patients with a history of two episodes of depression: 2/10 (20%) from ITT and PP p-*value for difference between rates* $p = 0.001$ (for three or more episodes of depression) *Relative risk/odds ratio/hazard ratio* Hazard ratio 0.278 (95% CI 0.130 to 0.597) for patients with a history of three or more episodes of depression. No significant difference in HR for patients with previous episodes

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
	Setting Participants were recruited through GPs and advertisements in local newspapers. *Note*: the setting was a replica of Teasdale 2000 study, except that this was a single-centre study, whereas the Teasdale's study involved three centres *No. included at baseline* 75 (37 MBCT; 38 TAU) *No. lost to follow-up* 6/75 (8%) all MBCT; three failed to attend any training session and three dropped out after attending fewer than four sessions that were considered to be satisfactory in order to be included in the PP analysis *ITT analysis?* Yes; also PP analysis	*Total intervention duration* 8 weeks, 2 follow-up meetings at 1 and 6 months *Concurrent treatments* For patients who had reported a lifetime two episodes of depression ■ ~25% had one or more depression-related visit to GP ■ ~13% sought counselling, psychotherapy, or professional mental health support ■ ~13% had other mental health contacts ■ ~13% received medication for depression For patients who had reported three or more episodes of depression ■ ~25% had one or more depression-related visit to GP ■ ~21% sought counselling, psychotherapy, or professional mental health support ■ ~11% had other mental health contacts ■ ~21% received medication for depression			

HRSD, Hamilton Rating Scale for Depression; PP, per-protocol.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Rohde[65] *Year* 2008 *Country* USA *Full publication?* Yes *Study design* RCT	*Inclusion criteria* 12–17 years of age; current DSM-IV MDD; CDRS-R score of 45 or higher; responder status on 7-point CGI scale; stable mood symptoms for at least 6 weeks; impairment in at least two settings *Exclusion criteria* Psychiatric disorders requiring out-of-protocol treatments; one failed CBT trial or two failed SSRI trials for depression; current psychiatric treatment (other than stable dose stimulant medication for ADHD); non-English speaking; confounding medical condition; previous intolerance to fluoxetine; pregnant or sexually active while refusing acceptable birth control; or danger to self or others *Previous treatment(s) received* After randomisation, participants received acute treatment (12 weeks), followed by continuation treatment (6 weeks) then maintenance treatment (18 weeks) *Setting* 13 US sites *No. included at baseline* 147 had achieved a sustained response to acute treatment (week 12) and went on to have continuation therapy *No. lost to follow-up* 40 *ITT analysis?* Yes	*Name of intervention* 1. CBT 2. Fluoxetine pharmacotherapy 3. Combined CBT and fluoxetine *Structured content?* Acute treatment (first 12 weeks) consisted of tailored CBT, including psychoeducation about depression and its causes, goal-setting, mood monitoring, increasing pleasant activities, social problem-solving, cognitive restructuring and addressing social skill deficits. Continuation treatment (6 weeks of further CBT) varied in intensity, based on the patient's response to acute treatment Maintenance treatment (18 weeks) – participants met their clinicians every 6 weeks for three CBT booster sessions and, if applicable, continued taking medication. CBT treatment was manualised *Delivered by?* Not stated *Group intervention?* No, individualised *No. of sessions* Acute treatment: 15 Continuation treatment: 6 Maintenance treatment: 3 *Session duration and frequency* Acute treatment: 50–60 minutes, weekly Continuation treatment: 50–60 minutes, weekly Maintenance treatment: 50–60 minutes, every 3 weeks *Total intervention duration* Acute treatment: 10–12 hours Continuation treatment: 5–6 hours Maintenance treatment: 2.5–3 hours *Concurrent treatments* Combination treatment group received fluoxetine alongside CBT	*Comparator name* Clinical management with placebo (for 12 weeks of acute treatment only) *Comparator details* Not stated *Concurrent treatments* Not stated	*Definition of relapse/recurrence* 'Sustained response' was defined as two consecutive ratings of 'full response' according to the CGI-I (score 1–2) during acute treatment. Maintenance of sustained response was classified as 'failed to maintain' (i.e. relapse/recurrence, CGI-I score of 3–7) 'Maintained sustained response' – given continued full responder status (CGI-I score 1–2) or 'unknown' (independent evaluation data unavailable)	*Intervention relapse rate* 1/76 (3.1%) for CBT 14/80 (25.9%) for fluoxetine 7/86 (11.5%) for combination CBT/fluoxetine

CDRS-R, Children's Depression Rating Scale, Revised; MDD, major depressive disorder.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Takanashi[66] *Year* 2002 *Country* Japan *Full publication?* Yes (Japanese, with English abstract) *Study design* Non-RCT with concurrent control group	*Inclusion criteria* Patients currently being treated for depression, diagnosed according to ICD-10 F32 (depressive episode) or F33 (recurrent depressive episode) were recruited to the study group. The control group were currently being treated for depression, but considered to be in remission (no details given) *Exclusion criteria* Suicidal thoughts or mood disorder; drug or alcohol dependence; dementia or other brain conditions *Previous treatment(s) received* Not reported *Setting* University hospital outpatient department *No. included at baseline* 53 (31 intervention group; 22 control group) *No. lost to follow-up* Not reported *ITT analysis?* Not reported	*Name of intervention* CBT; programme described by Munoz and Ying[105] adapted to Japanese setting *Structured content?* Manualised content, classes covering influence of thoughts on emotions; learning how to change thoughts; effect of behaviour on feelings; increasing enjoyable activities; effects of interpersonal interactions on feelings; increasing interpersonal activities; and prevention of depression *Delivered by?* Psychiatrists (no. not given). Training or experience not reported *Group intervention?* Yes *No. of patients per group (if applicable)* Four or five *No. of sessions* Eight *Session duration and frequency* 60–90 minutes per weekly session *Total intervention duration* 2 months *Concurrent treatments* Not reported	*Comparator name* Control group *Comparator details* Outpatients attending hospital for maintenance treatment, considered to be in remission (no details reported) *Concurrent treatments* Not reported	*Definition of relapse/ recurrence* Recurrence defined as an increase in medication or a worsening of social adjustment or a decline in ability to undertake work/ housework measured at baseline and post intervention (for the intervention group only) and at 12-month follow-up by the following: BDI, HRSD, CES-D, SCL. Remission not defined *Other outcomes*	*Intervention relapse rate* Not reported *Comparator relapse rate* Not reported p-*value for difference between rates* Not reported *Relative risk/odds ratio/ hazard ratio* Kaplan–Meier curves of the proportion of patients remaining in remission up to 5 years suggest that the intervention may have an affect

CES-D, Center for Epidemiological Studies-Depression Scales; HRSD, Hamilton Rating Scale for Depression; SCL, symptoms check list.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Teasdale[67] *Year* 2000 *Country* UK and Canada *Full publication?* Yes *Study design* Multicentre RCT	*Inclusion criteria* Patients aged 18–65 years; a history of major recurrent depression (at least two episodes of major depressions within the past 5 years and that one of the episodes was within the past 2 years) in the absence of a history of mania and hypomania; meeting enhanced DSM-III-R; a history of treatment by a recognised antidepressant medication and off treatment for at least 12 weeks preceding the study; currently in remission or recovery and scored < 10 on the 17-item HRSD at baseline *Exclusion criteria* History of schizophrenia or schizoaffective disorder; current substance abuse; eating disorder or obsessive–compulsive disorder); organic mental disorder, pervasive developmental delay, or borderline personality disorder; dysthymia before age 20 years; more than four sessions of cognitive-behavioural therapy ever; current psychotherapy or counselling more frequently than once per month; and current practice of meditation more than once per week or yoga more than twice per week *Previous treatment(s) received* 100% for MBCT and TAU took antidepressant medication; 11% MBCT and 17% TAU hospitalised for depression; and 73% MBCT and 68% TAU received psychotherapy/counselling	*Name of intervention* MBCT *Structured content?* Manualised group-based MBCT training programme; daily homework exercises. The programme includes daily homework exercises that includes some form of guided (taped) or unguided awareness exercises, directed at increasing moment-by-moment non-judgemental awareness of bodily sensation, thoughts, and feelings, together with exercises designed to integrate application of awareness skills into daily life. This MBCT programme is based on integration of aspects of CBT for depression with components of MBSR programme designed to teach patients skills that allow individual to disengage from habitual (manic) dysfunctional cognitive routines. MBCT sessions were videotaped or audiotaped with the patient's permission to allow monitoring of treatment *Delivered by?* Three experienced cognitive therapists who jointly developed the MBCT programme and previously led at least one cohort of recovered depressed patients through the MBCT programme *Group intervention?* Yes *No. of patients per group (if applicable)* Up to 12	*Comparator name* TAU *Comparator details* Patients received their usual treatment and were instructed to seek help from their family doctor, or other sources, as they normally would, if they encountered symptomatic deterioration or other difficulties over the course of the study *Concurrent treatments* ~52% had one or more depression-related visit to GP ~40% received medication for depression ~34% received counselling/ psychotherapy/professional mental health support ~21% had other mental health contact ~8% received psychiatric treatment as outpatients ~2% received psychiatric treatment as day patients ~2% received psychiatric treatment as inpatients	*Definition of relapse/ recurrence* Depression episode meeting DSM-III-R criteria, assessed by DSM-III-R (SCID). The assessment was undertaken by a clinical psychologist blind to the patient's treatment condition. Intervention audiotaped and all who met criteria for major depression were evaluated by an independent blind assessor *Other outcomes* Medication use for depression Severity: Patients completed BDI at baseline and each follow-assessment HRSD measured at baseline and each follow-up assessment	*Intervention relapse rate* For participants with three or more previous episodes: 22/55 (40%) at the end of 60 weeks of follow-up (ITT analysis). 18/49 (37%) at the end of 60 weeks of follow-up (PP analysis) *Comparator relapse rate* 33/50 (66%) in TAU at the end of 60 weeks of follow-up (ITT analysis) 33/50 (66%) at the end of 60 weeks of follow-up (PP analysis) p-*value for difference between rates* $p < 0.01$ *Relative risk/odds ratio/ hazard ratio* Hazard ratio 0.473 (CI 0.267 to 0.836) (for the ITT analysis) Hazard ratio 0.419 (CI 0.229 to 0.766) (for the PP analysis). For participants with two previous episodes, there was no significant difference in relapse/ recurrence between the two groups

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
	Setting Patients were recruited from community health-care facilities and by media announcements at three different sites: north Wales around Bangor (a predominantly rural Welsh-speaking area); Cambridge (UK) and surrounding area; and Toronto, ON (Canada) a metropolis. No academic staff or students in the site in Cambridge were included *No. included at baseline* 145 patients (MBCT $n=76$ and TAU $n=69$) *No. lost to follow-up* 13/145 (8.97%); 95% of ITT, 97% of PP *ITT analysis?* Both ITT and PP	*No. of sessions* Eight group sessions plus one individualised orientation session before the start of treatment, and four follow-up sessions Session duration and frequency 2-hour group session every week, followed by four follow-up sessions (duration not stated) at 1, 2, 3 and 4 months after the initial session, or bimonthly *Total intervention duration* 6 months *Concurrent treatments* ~58% had one or more depression-related visit to GP ~49% received counselling/ psychotherapy/professional mental health support ~45% received medication for depression ~17% received other mental health contact ~10% received psychiatric outpatient treatment			

HRSD, Hamilton Rating Scale for depression; MBSR, Mindfulness-based Stress Reduction; PP, per-protocol.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Wilkinson[68] *Year* 2009 *Country* UK *Full publication?* Full *Study design* RCT	*Inclusion criteria* Patients aged 60 years and over who had experienced an episode of major depression (ICD-10 criteria) within the last year that had remitted for at least 2 months on antidepressant medication; still taking antidepressants and scored <10 on the MADRS *Exclusion criteria* MMSE <24, current severe alcohol problems, bipolar disorder *Previous treatment(s) received* All patients had received antidepressant treatment during their index illness: 11/45 had received neuroleptics, 4/45 ECT and 9/45 other (not specified). Rates appear similar between groups *Setting* Patients recruited from GP surgeries and psychiatric services in Oxford and Southampton *No. included at baseline* 45 *No. lost to follow-up* 9/45 (20%) *ITT analysis?* Yes	*Name of intervention* Brief group cognitive behaviour therapy (CBT-G) *Structured content?* CBT-G manual written for the study. Structured CBT-G course with full details of session content provided. All sessions supported by reading the therapy manual. Adherence assessed by videotaping sessions *Delivered by?* Clinical psychologist with diploma in cognitive therapy *Group intervention?* Yes *No. of patients per group (if applicable)* 4–6 *No. of sessions* Eight *Session duration and frequency* 90-minute weekly sessions (except weeks 7 and 9) *Total intervention duration* 10 weeks *Concurrent treatments* TAU; all participants were being treated with antidepressants equivalent to fluoxetine 20 mg or amitriptyline 150 mg	*Comparator name* TAU *Comparator details* TAU (follow-up by GP or community mental health team and monitoring of antidepressant medication). Participants did not receive any psychological treatment *Concurrent treatments* All participants were being treated with antidepressants equivalent to fluoxetine 20 mg or amitriptyline 150 mg	*Definition of relapse/ recurrence* Rate of recurrence (MADRS ≥ 10) at 6 and 12 months after starting CBT-G *Other outcomes* Proportion of patients with BDI ≥ 12 patient satisfaction at the end of CBT-G treatment (CBT-G arm only) assessed by questionnaire	*Intervention relapse rate* 1/18 (6%) at 6 months 5/18 (28%) at 12 months *Comparator relapse rate* 4/19 (21%) at 6 months 8/18 (44%) at 12 months *p-value for difference between rates* 'Non-significant' *Relative risk/odds ratio/hazard ratio* Relative risk = 0.34 (95% CI 0.03 to 3.35) at 6 months Relative risk = 0.70 (95% CI 0.26 to 1.94) at 12 months

ECT, electroconvulsive therapy; MMSE, Mini Mental State Examination.

Ongoing studies

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Kuyken[69] *Year* 2010 *Country* UK *Full publication?* Protocol only, study ongoing *Study design* RCT	*Inclusion criteria* Diagnosis of recurrent major depressive disorder in full or partial remission according to the DSM-IV, with three or more previous major depressive episodes; aged 18 years or older; and on a therapeutic dose of antidepressant medication in line with the *British National Formulary* and NICE guidance; must have experienced three previous episodes when depression is the primary disorder and not secondary to substance abuse or bereavement *Exclusion criteria* Currently depressed, comorbid diagnoses of current substance abuse; organic brain damage; current/past psychosis, including bipolar disorder; persistent antisocial behaviour; persistent self-injury requiring clinical management/therapy; and formal concurrent psychotherapy *Previous treatment(s) received* Antidepressant medication *Setting* Participants recruited through primary care in south-west England *No. included at baseline* 420 (planned)	*Name of intervention* MBCT *Structured content?* Fully manualised psychosocial intervention with the treatment rationale for each session outlined in full. Derived both from mindfulness-based stress reduction and from CBT. Session content includes psycho-education, teaching/discussion of key cognitive behavioural skills, guided mindfulness practices, review of weekly homework (40 minutes of mindfulness practice per day and generalisation of cognitive behavioural skills). Competence/adherence independently assessed using videotaped sessions *Delivered by?* Mental health professionals with extensive training in MBCT *Group intervention?* Yes *No. of patients per group (if applicable)* 12–15 *No. of sessions* Eight, plus four follow-up sessions *Session duration and frequency* Weekly for initial 8 weeks. Four follow-up sessions over 2 years (first at 3–5 weeks' follow-up) *Total intervention duration* Unclear *Concurrent treatments* Initial antidepressant medication, tapered with GP support	*Comparator name* Maintenance antidepressants (m-ADMs) *Comparator details* Patients encouraged to continue to take a therapeutic level of antidepressants for the 2-year duration of the trial. Medication adherence monitored through patients' self-report and through manual checks of GP practice databases at 12- and 24-month follow-ups *Concurrent treatments* None	*Definition of relapse/recurrence* Rate and time to relapse/recurrence, assessed using the SCID designed for longitudinal studies of depression. Relapse/recurrence defined as having a major depressive episode (a score of 5 for two consecutive weeks) at any time during the 24-month follow-up period *Other outcomes* Residual depressive symptoms (HRSD and BDI); psychiatric comorbidity (SCID); medical comorbidities; depression-free days (SCID); QoL (EQ-5D)	Protocol only – no results currently available

HRSD, Hamilton Rating Scale for Depression.

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Watkins[106] *Year* 2010 *Country* UK *Full publication?* No – protocol only, study ongoing *Study design* RCT	*Inclusion criteria* History of at least two previous episodes of major depression; not currently depressed; aged 18 years or over *Exclusion criteria* Current psychotherapy; psychosis; current substance/alcohol use *No. included at baseline* 70 (planned sample size)	*Name of intervention* Cognitive training self-help in addition to TAU *Structured content?* Initial meeting lasting approx 1.5 hours, during which the researcher will explain the rationale for why cognitive training is helpful and then practice relaxation or the cognitive training paradigm *Total intervention duration* 6 months	*Comparator name* Relaxation training self-help in addition to TAU	*Definition of relapse/recurrence* HRSD measured at baseline plus 2, 5 and 8 months post baseline *Other outcomes* BDI-II measured at baseline plus 2, 5 and 8 months post baseline	Protocol only – no results currently available

Study details	Participant details	Intervention details	Comparator details	Outcomes measured	Results
Author Williams[71] *Year* 2010 *Country* UK *Full publication?* Protocol only, study ongoing *Study design* Multicentre RCT (Oxford and Bangor)	*Inclusion criteria* Age 18–70 years; meeting DSM-IV criteria for history of recurrent major depression; meeting NIMH guidelines for recovery or remission at the time of baseline assessment; informed consent; consent received from participant's GP *Exclusion criteria* History of schizophrenia, schizoaffective disorder, bipolar disorder, current severe substance abuse, organic mental disorder, pervasive developmental delay, a primary diagnosis of obsessive–compulsive disorder or eating disorder, or regularly self-harm; positive continuing response to CBT; receiving psychotherapy or counselling more than once per month; cannot complete baseline assessment (e.g. difficulties with English, visual impairment or cognitive difficulties) *Setting* Participants to be recruited through advertisements in the community, in clinics and GP surgeries, as well as through referrals from GPs and mental health clinicians *No. included at baseline* Aim to recruit 375 participants, with final sample 300 after accounting for attrition *ITT analysis?* Yes	*Name of intervention* 1. MBCT 2. CPE *Structured content?* MBCT and CPE, both consist of 8 weekly classes of 2 hours' duration. MBCT is a manualised treatment programme that combines training in mindfulness meditation with cognitive therapy techniques. As well as sessions, advise participants to spend about an hour per day on home-based practice which includes regular meditation practice and smaller tasks aimed at cultivating mindfulness in everyday life. CPE includes all of the elements of the MBCT programme except those that are intended to support participants in experientially cultivating mindfulness *Delivered by?* Four therapists, each led six classes *Group intervention?* Yes *No. of patients per group (if applicable)* 12 *No. of sessions* 10 *Session duration and frequency* Two-hour sessions, weekly for 8 weeks, then one additional session at 6–8 weeks and one 6 months after treatment *Total intervention duration* Eight weeks, plus 6-month follow-up session	*Comparator name* TAU	*Definition of relapse/recurrence* Time to relapse or recurrence meeting DSM-IV criteria for major depression, assessed by SCID at 3, 6, 9 and 12 months. 'Return to treatment' considered a relapse or recurrence if the participant experienced exacerbation of symptoms that would have met criteria for major depression in the absence of immediate treatment *Other outcomes* Severity of depression and hopelessness (HSRD, BDI, Beck Hopelessness Scale). Cognitive measures relevant to risk of relapse or recurrence (mindfulness, self-compassion, rumination, self-discrepancy, autobiographical memory and executive capacity before and immediately after treatment and at the end of the follow-up)	Protocol only – no results currently available

HSRD, Hamilton Rating Scale for Depression; NIMH, National Institute of Mental Health.

Appendix 4

Quality assessment of effectiveness evaluations

Study identification:	**Katon *et al.*[45,57–60]**	
Study design:	**Individual RCT**	
Guidance topic:	**Low-intensity interventions for the prevention of relapse of depression**	
Assessed by:	**MR (checked ADA)**	
Section 1: Population		
1.1 Is the source population or source area well described? Was the country (e.g. developed or non-developed, type of health-care system), setting (primary schools, community centres, etc.), location (urban, rural), population demographics, etc. adequately described?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Four primary care clinics of one HMO in western Washington, DC, USA Predominantly female (>70%), white (~90%), college educated (>85%), employed (~78%)
1.2 Is the eligible population or area representative of the source population or area? Was the recruitment of individuals/clusters/areas well defined (e.g. advertisement, birth register)? Was the eligible population representative of the source? Were important groups under-represented?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* May not be generalisable to more diverse racial and ethnic groups, patients from lower socioeconomic status, other types of primary care setting
1.3 Do the selected participants or areas represent the eligible population or area? Was the method of selection of participants from the eligible population well described? What percentage of selected individuals/clusters agreed to participate? Were there any sources of bias? Were the inclusion/exclusion criteria explicit and appropriate?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* Patients with potential high risk for relapse were assessed for eligibility using SCID: 12.4% refused to enrol. 8% of eligible patients refused baseline interview
Section 2: Method of allocation to intervention (or comparison)		
2.1 Allocation to intervention (or comparison). How was selection bias minimised? Was allocation to exposure and comparison randomised? Was it truly random (++) or pseudo-randomised (+) (e.g. consecutive admissions)? If not randomised, was significant confounding likely (–) or not (+)? If a crossover, was order of intervention randomised?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Computer-generated randomisation sequence in blocks of eight
2.2 Were interventions (and comparisons) well described and appropriate? Were intervention/s and comparison/s described in sufficient detail (i.e. enough for study to be replicated)? Was comparison/s appropriate (e.g. usual practice rather than no intervention)?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* Multifaceted relapse prevention programme including patient education, visits with a depression specialist, telephone monitoring and follow-up Focus on medication maintenance and increased self-efficacy Compared with usual care

2.3 Was the allocation concealed? Could the person(s) determining allocation of participants/ clusters to intervention or comparison groups have influenced the allocation? Adequate allocation concealment (++) would include centralised allocation or computerised allocation systems	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Computerised allocation
2.4 Were participants and/or investigators blind to exposure and comparison? Were participants *and* investigators – those delivering and/ or assessing the intervention – kept blind to intervention allocation? (triple or double blinding score [++]) If lack of blinding is likely to cause important bias, score (–)	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* Unblinded comparison against usual care. There was no 'sham' relapse prevention, so not possible to separate the effects of additional attention from programme content. Telephone interviewer was blinded to randomisation status
2.5 Was the exposure to the intervention and comparison adequate? Is reduced exposure to intervention or control related to the intervention (e.g. adverse effects leading to reduced compliance) or fidelity of implementation (e.g. reduced adherence to protocol)? Was lack of exposure sufficient to cause important bias?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* 93.3% of patients attended both face-to-face visits; 79.9% completed all three telephone follow-ups
2.6 Was contamination acceptably low? Did any in the comparison group receive the intervention or vice versa? If so, was it sufficient to cause important bias? If a crossover trial, was there a sufficient washout period between interventions?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* No crossovers reported
2.7 Were other interventions similar in both groups? Did either group receive additional interventions or have services provided in a different manner? Were the groups treated equally by researchers or other professionals? Was this sufficient to cause important bias?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Both groups encouraged to maintain medication and had the option to self-refer to a mental health provider
2.8 Were all participants accounted for at study conclusion? Were those lost-to-follow-up (i.e. dropped or lost pre-/ during/post intervention) acceptably low (i.e. typically < 20%)? Did the proportion dropped differ by group? For example, were dropouts related to the adverse effects of the intervention?	[ ] ++ [ ] + [•] – [ ] NR [ ] NA	*Comments* Over 12 months, 10.3% of intervention and 20.8% of control patients missed follow-up interviews
2.9 Did the setting reflect usual UK practice? Did the setting in which the intervention or comparison was delivered differ significantly from usual practice in the UK? For example, did participants receive intervention (or comparison) condition in a hospital rather than a community-based setting?	[ ] ++ [ ] + [•] – [ ] NR [ ] NA	*Comments* US primary care HMO setting
2.10 Did the intervention or control comparison reflect usual UK practice? Did the intervention or comparison differ significantly from usual practice in the UK? For example, did participants receive intervention (or comparison) delivered by specialists rather than GPs? Were participants monitored more closely?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* Usual care as described similar to UK primary care, except option to self-refer to mental health specialist. Intervention could conceivably be implemented in UK primary care

Section 3: Outcomes

3.1 Were outcome measures reliable? Were outcome measures subjective or objective (e.g. biochemically validated nicotine levels [++] vs self-reported smoking [–])? How reliable were outcome measures (e.g. inter- or intra-rater reliability scores)? Was there any indication that measures had been validated (e.g. validated against a gold standard measure or assessed for content validity)?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Relapse/recurrence assessed with SCID and Longitudinal Interval Follow-up Evaluation. Symptoms using SCL-20. Medication adherence using automated pharmacy data
3.2 Were all outcome measurements complete? Were all/most study participants who met the defined study outcome definitions likely to have been identified?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments*
3.3 Were all important outcomes assessed? Were all important benefits and harms assessed? Was it possible to determine the overall balance of benefits and harms of the intervention vs comparison?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments*
3.4 Were outcomes relevant? Where surrogate outcome measures were used, did they measure what they set out to measure? (e.g. a study to assess impact on physical activity assesses gym membership – a potentially objective outcome measure – but is it a reliable predictor of physical activity?)	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Measured attitudes about antidepressants, side effect management, self-management practices and medication use alongside relapse
3.5 Were there similar follow-up times in exposure and comparison groups? If groups are followed for different lengths of time then more events are likely to occur in the group followed up for longer, distorting the comparison Analyses can be adjusted to allow for differences in length of follow-up (e.g. using person-years)	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* Planned length of follow-up same for both groups, but greater loss to follow-up in usual-care group. Used imputation models to adjust for missing data
3.6 Was follow-up time meaningful? Was follow-up long enough to assess long-term benefits/harms? Was it too long, for example participants lost to follow-up?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* 12 months

Section 4: Analysis

4.1 Were exposure and comparison groups similar at baseline? If not, were these adjusted? Were there any differences between groups in important confounders at baseline? If so, were these adjusted for in the analyses (e.g. multivariate analyses or stratification)? Were there likely to be any residual differences of relevance?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Similar in terms of age, sex, level of education, race, employment status, SCL-depression, recurrent depression and antidepressant use. Slight difference in major depression within last 2 years (intervention 78.5%; control 87.5%)
4.2 Was ITT analysis conducted? Were all participants (including those that dropped out or did not fully complete the intervention course) analysed in the groups (i.e. intervention or comparison) to which they were originally allocated?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* Missing response data were imputed using baseline values. No sensitivity analysis

4.3 Was the study sufficiently powered to detect an intervention effect (if one exists)? A power of 0.8 (i.e. it is likely to see an effect of a given size if one exists, 80% of the time) is the conventionally accepted standard Is a power calculation presented? If not, what is the expected effect size? Is the sample size adequate?	[ ] ++ [ ] + [ ] – [•] NR [ ] NA	*Comments*
4.4 Were the estimates of effect size given or calculable? Were effect estimates (e.g. relative risks, absolute risks) given or possible to calculate?	[ ] ++ [ ] + [ ] – [•] NR [ ] NA	*Comments*
4.5 Were the analytical methods appropriate? Were important differences in follow-up time and likely confounders adjusted for? If a cluster design, were analyses of sample size (and power), and effect size performed on clusters (and not individuals)? Were subgroup analyses prespecified?	[•] ++ [ ] + [ ] – [ ] NR [ ] NA	*Comments* Where necessary, generalised models were used to account for repeated measures
4.6 Was the precision of intervention effects given or calculable? Were they meaningful? Were CIs and/or *p*-values for effect estimates given or possible to calculate? Were CIs wide or were they sufficiently precise to aid decision-making? If precision is lacking, is this because the study is underpowered?	[ ] ++ [•] + [ ] – [ ] NR [ ] NA	*Comments* CIs and/or *p*-values reported for some outcomes, although not for relapse/recurrence
Section 5: Summary		
5.1 Are the study results internally valid (i.e. unbiased)? How well did the study minimise sources of bias (i.e. adjusting for potential confounders)? Were there significant flaws in the study design?	[ ] ++ [•] + [ ] –	*Comments* Not possible to separate the effects of attention from programme content. Validity of imputed data uncertain, although similarity of relapse outcomes would indicate bias favouring intervention is unlikely
5.2 Are the findings generalisable to the source population (i.e. externally valid)? Are there sufficient details given about the study to determine if the findings are generalisable to the source population? *Consider*: participants, interventions and comparisons, outcomes, resource and policy implications	[ ] ++ [•] + [ ] –	*Comments* May not be generalisable to more diverse racial and ethnic groups, patients from lower socioeconomic status, UK primary care setting

NA, not applicable; NR, not reported; SCL, Hopkins Symptom Checklist.

Appendix 5

Quality assessment of economic evaluations

Simon *et al*. (2002)[60]

Study question	Grade	Comments
Costs and effects examined	Yes	
Alternatives compared	Yes	
The viewpoint(s)/perspective of the analysis is clearly stated (e.g. NHS, society)	Yes	Strict health insurer perspective used
Selection of alternatives		
All relevant alternatives are compared (including do nothing if applicable)	Yes	Multifaceted intervention compared with standard care
The alternatives being compared are clearly described (who did what, to whom, where and how often)	Yes	
The rationale for choosing the alternative programmes or interventions compared is stated	Yes	
Form of evaluation		
The choice of economic evaluation is justified in relation to the questions addressed	Yes	
If a cost minimisation design is chosen, have equivalent outcomes been adequately demonstrated?	NA	
Effectiveness data		
The source(s) of effectiveness estimates used are stated (e.g. single study, selection of studies, systematic review, expert opinion)	Yes	Single study used
Effectiveness data from RCT or review of RCTs	Yes	From RCT
Potential biases identified (especially if data not from RCTs)	Yes	
Details of the method of synthesis or meta-analysis of estimates are given (if based on an overview of a number of studies)	NA	Single RCT used
Costs		
All the important and relevant resource use included	No	Costs of out of plan services not measured
All the important and relevant resource use measured accurately (with methodology)	Yes	Methodology given, but results not always reported
Appropriate unit costs estimated (with methodology)	Yes	
Unit costs reported separately from resource use	Yes	
Productivity costs treated separately from other costs	NA	
The year and country to which unit costs apply is stated with appropriate adjustments for inflation and/or currency conversion	Yes	USD 1997–8
Benefit measurement and valuation		
The primary outcome measure(s) for the economic evaluation is clearly stated	Yes	Cost per depression-free day
Methods to value health states and other benefits are stated	No	Value of depression-free year assumed to be 0.2 to 0.4 QALYs higher than fully symptomatically depressed year
Details of the individuals from whom valuations were obtained are given	Yes	

Decision modelling		
Details of any decision model used are given (e.g. decision tree, Markov model)	NA	Not model based
The choice of model used and the key input parameters on which it is based are adequately detailed and justified	NA	
All model outputs described adequately	NA	
Discounting		
Discount rate used for both costs and benefits	No	Discount rates not applied to either costs or benefits. Very short time horizon of study (12 months)
Do discount rates accord with NHS guidance?	NA	
Allowance for uncertainty		
Stochastic analysis of patient-level data		
Details of statistical tests and CIs are given for stochastic data	Yes	Bootstrapping used to estimate CIs for costs and number of depression-free days
Uncertainty around cost-effectiveness expressed (e.g. CI around ICER CEACs)	No	
Sensitivity analysis used to assess uncertainty in non-stochastic variables (e.g. unit costs, discount rates) and analytic decisions (e.g. methods to handle missing data)	No	
Stochastic analysis of decision models		
Are all appropriate input parameters included with uncertainty?	NA	Not model based
Is second-order uncertainty (uncertainty in means) included rather than first order (uncertainty between patients)?	NA	
Are the probability distributions adequately detailed and appropriate?	NA	
Sensitivity analysis used to assess uncertainty in non-stochastic variables (e.g. unit costs, discount rates) and analytic decisions (e.g. methods to handle missing data)	NA	
Deterministic analysis		
The approach to sensitivity analysis is given (e.g. univariate, threshold analysis, etc.)	No	
The choice of variables for sensitivity analysis is justified	No	
The ranges over which the variables are varied are stated	No	
Presentation of results		
Incremental analysis is reported using decision rules	Yes	Results converted to QALYs and compared with other approved interventions
Major outcomes are presented in a disaggregated as well as aggregated form	Yes	
Applicable to the NHS setting	No	Not all relevant cost captured

NA, not applicable; No, item not adequately addressed; NS, not stated; Unclear, not enough information; Yes, item adequately addressed.

Kuyken *et al.* (2008)[63]

Study question	Grade	Comments
Costs and effects examined	Yes	
Alternatives compared	Yes	
The viewpoint(s)/perspective of the analysis is clearly stated (e.g. NHS, society)	Yes	Broad perspective including all hospital, community health and social services, as well as productivity losses due to time off work
Selection of alternatives		
All relevant alternatives are compared (including do nothing if applicable)	Yes	Usual care (maintenance antidepressant medication) vs mindfulness-based CBT
The alternatives being compared are clearly described (who did what, to whom, where and how often)	Yes	
The rationale for choosing the alternative programmes or interventions compared is stated	Yes	
Form of evaluation		
The choice of economic evaluation is justified in relation to the questions addressed	Yes	
If a cost minimisation design is chosen, have equivalent outcomes been adequately demonstrated?	NA	
Effectiveness data		
The source(s) of effectiveness estimates used are stated (e.g. single study, selection of studies, systematic review, expert opinion)	Yes	Single study
Effectiveness data from RCT or review of RCTs	Yes	Single RCT
Potential biases identified (especially if data not from RCTs)	Yes	
Details of the method of synthesis or meta-analysis of estimates are given (if based on an overview of a number of studies)	NA	Based on single study
Costs		
All the important and relevant resource use included	Yes	Patient's and family expenses and costs of informal care excluded
All the important and relevant resource use measured accurately (with methodology)	Yes	
Appropriate unit costs estimated (with methodology)	Yes	
Unit costs reported separately from resource use	No	
Productivity costs treated separately from other costs	Yes	
The year and country to which unit costs apply is stated with appropriate adjustments for inflation and/or currency conversion	Yes	UK 2005–6 converted to international dollars using PPP exchange rate of 0.6 from World Bank
Benefit measurement and valuation		
The primary outcome measure(s) for the economic evaluation is clearly stated	Yes	Cost per depressive relapse/recurrence prevented
Methods to value health states and other benefits are stated	NA	Health states not valued
Details of the individuals from whom valuations were obtained are given	NA	
Decision modelling		
Details of any decision model used are given (e.g. decision tree, Markov model)	NA	Not model based
The choice of model used and the key input parameters on which it is based are adequately detailed and justified	NA	
All model outputs described adequately	NA	

Discounting		
Discount rate used for both costs and benefits	No	No discounting of costs or benefits
Do discount rates accord with NHS guidance?	NA	
Allowance for uncertainty		
Stochastic analysis of patient-level data		
Details of statistical tests and CIs are given for stochastic data	Yes	
Uncertainty around cost-effectiveness expressed (e.g. CI around ICER CEACs)	Yes	
Sensitivity analysis used to assess uncertainty in non-stochastic variables (e.g. unit costs, discount rates) and analytic decisions (e.g. methods to handle missing data)	No	
Stochastic analysis of decision models		
Are all appropriate input parameters included with uncertainty?	NA	Not model based
Is second-order uncertainty (uncertainty in means) included rather than first order (uncertainty between patients)?	NA	
Are the probability distributions adequately detailed and appropriate?	NA	
Sensitivity analysis used to assess uncertainty in non-stochastic variables (e.g. unit costs, discount rates) and analytic decisions (e.g. methods to handle missing data)	NA	
Deterministic analysis		
The approach to sensitivity analysis is given (e.g. univariate, threshold analysis, etc.)	NA	No sensitivity analysis conducted
The choice of variables for sensitivity analysis is justified	NA	
The ranges over which the variables are varied are stated	NA	
Presentation of results		
Incremental analysis is reported using decision rules	Yes	CEAC used
Major outcomes are presented in a disaggregated as well as aggregated form	No	
Applicable to the NHS setting	No	Results reported using disease-specific outcome measures

NA, not applicable; No, item not adequately addressed; NS, not stated; Unclear, not enough information; Yes, item adequately addressed.

Appendix 6

Review protocol

Title of the project

The clinical effectiveness and cost-effectiveness of low-intensity psychological interventions for the secondary prevention of relapse after depression: a systematic review and decision analytical model.

Name of TAR team and 'lead'

CRD/CHE Technology Assessment Group (Centre for Reviews and Dissemination/Centre for Health Economics), University of York.

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Plain English summary

Depression is a common condition defined by persistent depressed mood and loss of interest in activities. Even after successful treatment, a high proportion of people will go on to have a relapse of their depression. People with depression may be treated with medicines, psychological interventions or both. Psychological interventions can be classed as 'high-intensity' or 'low-intensity' depending on the amount of direct contact between the patient and a health professional. Low-intensity psychological interventions can include approaches such as computer-delivered treatments and self-help books, for which people may or may not receive personal support. The aim of this project is specifically to determine the clinical effectiveness and cost-effectiveness of low-intensity psychological interventions in preventing relapse of depression.

Decision problem

Background

Depression

Depression can refer to a range of mental health problems primarily characterised by persistent depressed mood and loss of interest in activities, among other potential symptoms.[1] A World Health Organization cross-sectional survey revealed the global one year prevalence of a depressive episode to be 3.2%.[2] The prevalence is greater still in people with other medical

conditions (10–14% of patients receiving general hospital care).[3] Neuropsychiatric disorders account for a third of all years lost to disability (YLD), with unipolar major depressive disorder alone accounting for 11% of global YLDs.[2]

Initial treatment and relapse of depression

Over 80% of patients diagnosed with depression receive psychological, pharmacological or combined treatment in primary care.[4] The objective of treatment is to achieve remission of depressive symptoms. However, the risk of relapse after remission is significant, and has been reported as 50% among patients having experienced one episode of major depression and 70% and 90% after two and three episodes respectively.[5] At least 10% of patients have persistent or chronic depression.[6]

Low-intensity interventions

In general, people with depression tend to prefer psychological and psychosocial interventions to pharmacological interventions.[7] However, high-intensity psychological and psychosocial therapies (e.g. cognitive behavioural therapy, problem solving, counselling) that involve one-to-one therapy with a health professional over extended periods of time, are resource intensive. Consequently, less intensive therapies and innovative delivery formats such as group-based work have been developed. 'Self-directed interventions' may refer to a variety of psychological treatments in which there is no or only a low level of therapist involvement, and include computer-delivered treatment and bibliotherapy among other intervention technologies. The 2009 NICE guideline on depression[4] refers to these as 'low-intensity psychosocial interventions', and this is the term that will be used throughout this protocol.

The NICE guideline provides clinical evidence on three main forms of low-intensity therapy:

- Computerised cognitive behavioural therapy (CCBT) provides a structured programme of care based on the principles of standard therapist-delivered CBT but is delivered via a CD-ROM/DVD or the internet. Where CCBT is delivered as a primary intervention with minimal therapist involvement, it is considered a low-intensity intervention.
- Guided self-help involves the use of evidence-based self-help books or manuals aimed specifically at depression. Guided self-help is distinct from 'pure' self-help in that a healthcare professional (or para-professional) facilitates the use of the material by introducing, monitoring and assessing the outcome of the intervention.
- Physical activity programmes have been defined as any structured physical activity with a recommended frequency, intensity and duration when used for depression. This could be aerobic (e.g. running/jogging, dancing) or anaerobic (e.g. resistance training), and be supervised or unsupervised, and undertaken in a group or individually.

The NICE clinical practice guidelines recommend that CCBT, individual guided self-help and structured group physical activity programmes be considered for people with persistent subthreshold depressive symptoms or mild to moderate depression. Recommended duration of CCBT and guided self-help is 9 to 12 weeks including follow-up. Group physical activity with practitioner support is recommended for three sessions per week over 10 to 14 weeks.[4]

Though the NICE guidance covers low-intensity psychological interventions, it does not provide a clear definition of what constitutes 'low-intensity' treatment. However, recent guidance produced by the NHS Improving Access to Psychological Therapies (IAPT) programme states that "A low-intensity intervention…may use simple or 'single strand' approaches that are less complex to undertake than formal psychotherapy; contact with people is generally briefer than in other forms of therapy and can be delivered by paraprofessionals or peer supporters using non-traditional methods such as telephone or the internet".[8] Emphasis is on interventions delivered by

'psychological well-being practitioners' without formal healthcare professional or CBT therapist qualifications.[9] Though the IAPT guidance states that there is no arbitrary session limit, evidence from the IAPT demonstration site showed that the mean number of low-intensity CBT-based interventions was around five per person, though there was considerable variability around this figure.[8]

Although the effectiveness of low-intensity interventions has been extensively evaluated to treat primary symptoms of psychological difficulties,[10–12] there has been substantially less research examining the use of these interventions as a relapse prevention strategy.

Objective

The main aims of this project are to determine the clinical effectiveness and cost-effectiveness of low-intensity psychological or psychosocial interventions to prevent relapse in patient with depression. Where possible the relative efficacy of different types of intervention will be determined, as will the cost-effectiveness of these alternatives to current standard care.

As the definition of 'low-intensity' psychological intervention is somewhat contested, and the resources of the review are limited, the review will be conducted in two parts:

- **A:** All evaluations of 'low-intensity' interventions that can be delivered by paraprofessionals or peer supporters as defined by the IAPT programme will be indentified and reviewed. These will not be restricted by length of treatment or number of sessions. These will be synthesised in a full systematic review of clinical effects.
- **B:** All relevant evaluations of interventions involving qualified health professionals (e.g. clinicians, CBT therapists) will be included if they involve less than six hours of contact per patient. As a minimum, the literature in this area will be described and classified in a scoping review. However, should resources allow, these studies will also be extracted and synthesised as part of the full systematic review.

Report methods for synthesis of evidence of clinical effectiveness

A review of the evidence for clinical effectiveness will be undertaken systematically following the general principles recommended in CRD's guidance for undertaking reviews in health care[13] and the PRISMA statement.[14]

Search strategy

The search will comprise the following main elements:

- searching of electronic databases
- contact with experts in the field
- scrutiny of bibliographies of reviews and retrieved papers.

For clinical effects, the following databases will be searched: BIOSIS, CENTRAL, EMBASE, MEDLINE, MEDLINE in process, PsycINFO, Science Citation Index (SCI) and Social Science Citation Index.

In addition, guidelines and reviews will be identified using: Clinical Evidence, Cochrane Database of Systematic Reviews (CDSR), Database of Abstracts of Reviews of Effects (DARE), Health Technology Assessment Database (HTA), National Institute for Health and Clinical

Evidence (NICE) website, National Library for Health (NLH) Guidelines Finder, and SIGN Guidelines. These reviews and guidelines will be used to identify primary studies.

No language or date of publication restrictions will be placed on the search. Details of an example search strategy are presented in Appendix 1.

The bibliographies of all relevant reviews and guidelines and all included studies will be checked for further potentially relevant studies. In addition, citation searching will be undertaken for selected papers.

Inclusion and exclusion criteria

Titles and abstracts will be examined for relevance by two reviewers independently; all potentially relevant papers meeting the inclusion criteria below will be ordered. All full papers will be screened by two reviewers independently, relevance to the review and the decision to include studies or not will be made according to the inclusion criteria detailed below. Disagreements will be resolved by consensus.

Population

Patients who have received treatment for depression will be included. Our initial scoping of the literature identified only a small number of studies meeting criteria. We will not, therefore, restrict inclusion to studies in which depression was established using a gold-standard structured clinical interview. Studies defining depression on the basis of scores above a cut-off point on a recognised psychometric measure or on the basis of unaided clinical diagnosis will also be considered. The effects of the inclusion of these studies will be examined. Trials of participants with bipolar disorder will be excluded, as will studies of children.

Interventions

In part A of the clinical efficacy review, all relevant evaluations of 'low-intensity' interventions as defined by the IAPT programme[8, 9] will be indentified and reviewed. This will incorporate any unsupported psychological/psychosocial interventions or any supported interventions that do not involve highly qualified health professionals such as clinicians or CBT therapists. Such interventions may involve support from paraprofessionals, peer supporters, physical trainers, case managers (as in collaborative care models), or no personal support at all (e.g. entirely computerised interventions). 'Highly qualified professionals' would include clinicians who in most instances will have a core professional qualification (e.g., psychiatrist, clinical psychologist, mental health nurse) and has received formal, specialist training in the delivery of complex psychological interventions (e.g., 16+ session CBT, psychodynamic psychotherapy, systematic therapy etc.) 'Paraprofessionals' would include people who do not have a core profession and do not have specialist training in complex psychological interventions, though may have some training in less complex interventions. Inclusion will not be restricted by length of treatment or number of sessions. We expect that studies assessed in part A will include various methods of delivering the intervention (e.g., face-to-face, telephone, email, computer, web-based forums etc.); no exclusions will be made on the basis of the mode of delivery.

In part B of the review, all relevant evaluations of interventions involving qualified health professionals (e.g. clinician, CBT therapist) will be included if they involve less than six hours of contact per patient. For group treatment, contact estimates per patient will be calculated by the mean number of patients per group (with adjustments as necessary if there is more than one therapist). As a minimum, the characteristics of the literature in this area will be described and classified in a scoping review. This is likely to include interventions such as mindfulness-based cognitive therapy delivered in a group format for depressive relapse, computerised CBT

supported by a clinician, and brief maintenance or booster sessions of CBT taking place during a remission phase. Should resources allow, these studies will be extracted and synthesised alongside studies identified in part A of the systematic review.

High-intensity psychological interventions requiring ongoing interaction with a mental health professional (e.g. CBT, behavioural activation, problem solving therapy and couples therapy) will be excluded.

Studies evaluating pharmacotherapy alone (including tricyclic antidepressants, SSRIs, SNRIs, anxiolytic medication, mood stabilizers and others) will be excluded from the review of clinical effectiveness, as will studies of alternative and complementary treatment methods.

Comparators

Study inclusion will not be restricted by type of comparator treatment and can include no treatment (including waiting list control), placebo, psychological or pharmacological interventions.

Outcomes

Studies reporting outcomes related to relapse or recurrence (e.g. relapse rate, time to relapse, and severity of relapse episode) after initial treatment success will be included. Other relevant outcomes such as social function and quality of life measures will be recorded where reported.

Study designs

Randomised, quasi-randomised and non-randomised studies with concurrent controls will be considered for inclusion. Animal models, preclinical and biological studies, reviews, editorials, and opinions will be excluded.

Translations of non-English-language papers and additional details of studies published only as meeting abstracts will be obtained where time and budget constraints allow.

Data extraction strategy

Data will be extracted independently by one reviewer using a standardised data extraction form and checked by another. Discrepancies will be resolved by discussion, with involvement of a third reviewer when necessary. If time constraints allow, attempts will be made to contact authors for any missing data. Data from multiple publications of the same study will be extracted as a single study. Extraction will include data on: patient characteristics (e.g. age, gender, length of treated and untreated depression, number of previous episodes, age of onset, baseline severity of depression, previous treatment, comorbid conditions, concomitant treatment use), intervention (e.g. intervention type, length of treatment, whether it is structured/manualised, who delivers it and for how long, level of support provided, and the number of sessions, if any, attended), comparison (e.g. frequency of follow-up, additional interventions), study quality, and reported outcomes pertinent to the review (e.g. relapse, social function, adherence, quality of life).

Quality assessment strategy

The internal and external validity of all included studies will be assessed according to the quality appraisal checklist for quantitative intervention studies described in NICE's guide to methods for developing guidance in public health.[15] Study quality will be incorporated into the synthesis by comparing quality scores across studies and where possible focusing on the findings from evidence with less potential for bias (e.g. studies with low attrition rates, using randomisation, blinding, etc).

Methods of analysis/synthesis

Given the expected clinical and methodological heterogeneity of included studies, in the first instance data will be tabulated and discussed in a narrative synthesis. Studies may be grouped according to participant (e.g. comorbid conditions) or intervention (e.g. level of support/guidance) characteristics. As well as the main effects of each type of low-intensity intervention, the impact of factors such as previous treatment(s) for depression and duration of preventative treatment/length of contact time will be investigated.

If appropriate for any subgroups of studies, meta-analysis will be employed to estimate a summary measure of effect on relevant outcomes based on intention to treat analyses. Meta-analysis will be carried out using fixed or random effects models, using appropriate software. Heterogeneity will be explored through consideration of the study populations, methods and interventions, by visualisation of results and, in statistical terms, by the chi-squared test for homogeneity and the I^2 statistic. Analyses will be conducted using the stand-alone software package META-ANALYST.

Report methods for synthesising evidence of cost-effectiveness

Identifying and systematically reviewing published cost-effectiveness studies

Systematic searches will be undertaken to identify existing published studies reporting the cost-effectiveness of low intensive psychological interventions for the secondary prevention of relapse after depression. The following databases will be searched: MEDLINE, EMBASE, CENTRAL and EconLit. In addition, searches of NHS EED will be carried out, along with a search of the Economics Working Papers archive (IDEAS).

A broad range of studies will be considered in the assessment of cost-effectiveness including economic evaluations conducted alongside trials, modelling studies and analyses of administrative databases. Only full economic evaluations that compare two or more options and consider both costs and consequences (including cost-effectiveness, cost-utility and cost–benefit analyses) will be included in the review of economic literature.

Evaluation of costs and cost-effectiveness

The quality of the cost-effectiveness studies will be assessed according to a checklist updated from that developed by Drummond *et al* (2005)[16] and Philips *et al.* (2002).[17] This checklist will reflect the criteria for economic evaluation detailed in the methodological guidance developed by the National Institute for Clinical for Health and Excellence (NICE). This information will be tabulated and summarised within the text of the report. In particular information will be extracted on the comparators, study population, main analytic approaches (e.g. patient-level analysis/decision-analytic modelling), primary outcome specified for the economic analysis, details of adjustment for quality-of life, direct costs (medical and non-medical) and productivity costs, estimates of incremental cost-effectiveness and approaches to quantifying decision uncertainty (e.g. deterministic/probabilistic sensitivity analysis).

The review will examine existing decision-analytic models in detail, with the aim of identifying important structural assumptions, highlighting key areas of uncertainty and outlining the potential issues of generalising from the results of existing models. This review will be used to identify the central issues associated with adapting existing decision models to address the specific research question posed and to assist in the development of a new decision model drawing on the issues identified in the clinical effectiveness and cost-effectiveness review.

The presence of any data gaps (e.g. resource use data) that may need to be filled during the development of the model will be identified and used to inform additional searches where required.

Subject to the availability of suitable data, a new decision-analytic model will be developed to estimate the cost-effectiveness of self-directed interventions.

Development of a new decision-analytic model

Subject to the availability of appropriate data, a decision-analytic model will be developed to estimate the cost-effectiveness of alternative low-intensity psychological interventions for the prevention of relapse in adults treated for depression. The interventions evaluated will be informed by the results of the clinical effectiveness review.

The specific objectives of the cost-effectiveness analysis are:

- To structure an appropriate decision model to evaluate the long-term cost-effectiveness of relapse prevention in adults treated for depression.
- To populate this model using the most appropriate data identified systematically from published literature and routine data sources.
- To relate intermediate outcomes from the clinical effectiveness review (e.g. relapse rates, time to relapse and severity of relapse) to final health outcomes, expressed in terms of quality-adjusted life years (QALYs). This is necessary in order to provide decision makers with an indication of the health gain achieved by each intervention, relative to its additional cost, in units which permit comparison with other uses of health service resources.
- To estimate the mean cost-effectiveness of alternative low-intensity psychological interventions based on an assessment of NHS and Personal Social Service costs and QALYs.
- To explore heterogeneity in the cost-effectiveness estimates using subgroup analysis where appropriate.
- To characterise the uncertainty in the data used to populate the model and to present the uncertainty in these results to decision makers. A probabilistic model will be developed which requires that each input in the model is entered as an uncertain, rather than a fixed, parameter. Using Monte Carlo simulation, this parameter uncertainty, is translated into uncertainty in the overall results. This ultimately helps decision makers understand the probability that, in choosing to fund an intervention, they are making the wrong decision – that is, decision uncertainty. This is presented using cost-effectiveness acceptability curves which show the probability that each intervention is cost-effective conditional on a range of possible threshold values which NHS decision makers attach to an additional QALY.

The model structure will be developed during the review period. However, it is anticipated that the model will take the form of a Markov model to capture the longer-term impact of periods of relapse and remission in terms of associated resource utilisation and quality of life.

It is anticipated that additional systematic searches will be necessary to populate specific parameter inputs and assumptions applied in the longer-term Markov model. In order to estimate QALYs required for the cost-effectiveness analysis, it will be necessary to systematically search for appropriate published utility or preference scores related to depression (and remission from depression). Additional evidence may also be needed to supplement the proposed clinical effectiveness review to consider the potential cost-effectiveness of low-intensity psychological interventions compare to other potentially relevant strategies (e.g. pharmacological management). Should this additional evidence be required then this will be sought from previously published meta-analyses and the results presented as a separate scenario.

Resource utilisation will reflect the inputs associated with the psychological interventions themselves, medication and depression-related events. Resource use data will be informed from the clinical effectiveness and cost-effectiveness reviews and expert clinical opinion where necessary. These data will be combined with national sources of cost data (e.g. NHS Reference Costs, British National Formulary etc.) in order to estimate the total costs associated with each strategy considered.

To consider future research priorities in the NHS, the model will also be used to undertake analyses of the expected value of information. The expected value of perfect information (EVPI) will be estimated for the overall decision problem and for key parameters. EVPI represents the expected costs of decision uncertainty as perfect information would eliminate the possibility of making the wrong decision. Hence, EVPI for the overall decision problem represents the value of eliminating all uncertainty and EVPI for key parameters (termed partial EVPI) represents the value of eliminating uncertainties in particular subsets of parameters. Separate analyses will be undertaken to reflect the variability considered in the decision model itself. Per patient EVPI estimates will be scaled up to reflect the relevant UK population size and will adopt an appropriate time-horizon.

EVPI also represents the maximum amount that a decision-maker should be willing to pay for additional evidence to inform this decision in the future. EVPI provides an upper bound on the value of additional research. This valuation provides an initial hurdle, acting as a necessary requirement for determining the potential efficiency of further primary research. Applying this decision rule, additional research should only be considered if the EVPI exceeds the expected cost of the research. In addition to providing a global estimate of the total cost of uncertainty related to all inputs in the model, EVPI can also be estimated for individual parameters (and groups of parameters) contained in the model. The objective of this analysis (termed partial EVPI) is to identify the model parameters where it would be most worthwhile obtaining more precise estimates.

The results from the clinical effectiveness review and the EVPI results will be used to identify future research recommendations.

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The HTA programme and the authors would like to know your views about this report.

The Correspondence Page on the HTA website (www.hta.ac.uk) is a convenient way to publish your comments. If you prefer, you can send your comments to the address below, telling us whether you would like us to transfer them to the website.

We look forward to hearing from you.

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