

# A systematic review of controlled trials of the effectiveness and cost-effectiveness of brief psychological treatments for depression

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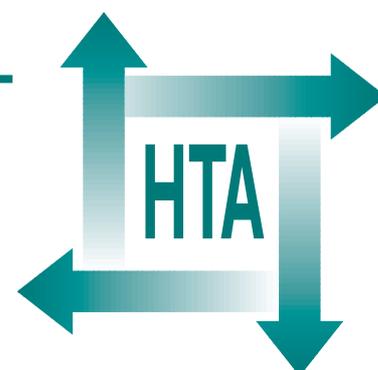
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## *Executive summary*

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## Executive summary

### Background

Depression is common and can result in considerable impairment causing distress to sufferers and their families. It is also of substantial cost to the NHS and the wider economy. Most depression is treated in primary care, where both pharmacological and psychological treatments are used. The provision of psychological treatments is increasing and the effectiveness and cost-effectiveness of these interventions for depression need to be demonstrated.

### Objectives

- (1) To conduct a systematic review and, where possible, a meta-analysis of all controlled clinical trials (CCTs) in which brief psychological treatments were compared with one another or treatment as usual in the treatment of depression.
- (2) To describe the internal validity, statistical power and external validity of the identified trials.
- (3) To compare the overall efficacy of all variants of brief psychological treatments with treatment as usual.
- (4) To compare the efficacy of cognitive behavioural therapy (CBT) with treatment as usual, interpersonal therapy (IPT), psychodynamic therapy (PDT) and supportive therapy (ST).
- (5) To compare the efficacy of IPT, PDT and ST with treatment as usual and with one another.
- (6) To compare the efficacy of all variants of individual and group therapies.
- (7) To summarise all available cost data from controlled trials of brief psychological treatments for depression.

### Methods

#### Data sources

A wide range of electronic bibliographic and specialist databases were searched using a comprehensive search strategy as appropriate. Eleven psychiatry/psychology and three economics journals were handsearched. In addition, bibliographies from the texts of relevant trials and

reviews, grey literature (e.g. conference proceedings and government documents) and dissertations were searched. Leading researchers in the field, members of the International Network of Agencies for HTA, health authorities, UK counselling organisations and psychology department heads were also contacted.

#### Study selection

Published/unpublished randomised controlled trials (RCTs) or CCTs comparing different forms of brief psychological treatments (described within an explicit psychological orientation completed within a time-limited framework of  $\leq 20$  sessions), or brief psychological treatments with treatment as usual were included. Trial participants could be males or females aged 16–65 years with a primary diagnosis of depression. Marital/couples and family therapy were excluded.

#### Data extraction and synthesis

Qualitative and quantitative data relating to internal and external validity, study power and outcomes were extracted using a standardised spreadsheet. Odds ratios and relative risks were calculated for recovery and dropout data. Based on calculated weighted or standardised mean differences, fixed- and/or random-effects models were used to pool the mean differences and mean change data. Clinical and methodological heterogeneity were explored through heterogeneity and sensitivity analyses, and, where possible, other sources of bias were investigated using funnel plots. Finally, the cost-effectiveness data were summarised.

### Results

Patients receiving any variant of psychotherapy were significantly more likely to improve to a degree where they were no longer considered clinically depressed, exhibited significantly fewer symptoms post-treatment and experienced greater symptom reduction from baseline than those receiving treatment as usual. No differences in treatment discontinuation were observed.

Patients receiving CBT were significantly more likely than those receiving PDT, IPT or ST to



improve to a degree where they were no longer regarded as being clinically depressed. No group differences in post-treatment symptoms, symptom reduction from baseline or dropouts during treatment were suggested.

Patients receiving individual therapies were significantly more likely to improve to a degree where they were no longer considered clinically depressed and exhibited fewer symptoms post-treatment. No differences in dropouts between groups were demonstrated.

No differences were demonstrated between cognitive and behavioural interventions in post-treatment recovery and symptoms, symptom reduction from baseline or dropouts.

Patients receiving variants of CBT were significantly more likely than those receiving treatment as usual to improve to a degree where they were no longer regarded as being clinically depressed and exhibited significantly fewer symptoms post-treatment and greater symptom reduction from baseline. No differences in dropouts between groups were demonstrated.

The evidence comparing variants of CBT with IPT was limited, but suggested that there were no differences in post-treatment recovery and dropouts during treatment. Patients receiving variants of CBT were significantly more likely than those receiving PDT to improve to a degree where they were no longer regarded as being clinically depressed, although no group differences in post-treatment symptoms, symptom reduction from baseline or dropouts were suggested. Patients receiving variants of CBT were significantly more likely than those receiving ST to improve to a degree where they were no longer considered clinically depressed and exhibited fewer symptoms post-treatment. No group differences in symptom reduction from baseline or dropouts during treatment were demonstrated.

Patients receiving ST were significantly more likely than those receiving treatment as usual to improve to a degree where they were no longer considered clinically depressed and exhibited fewer symptoms post-treatment. No group differences in symptom reduction from baseline or dropouts were suggested.

Trials comparing IPT with ST, IPT with treatment as usual and PDT with ST all yielded insufficient data upon which to base any firm conclusions.

It was not possible to draw any firm conclusions from the limited follow-up and economic data available, although economic evidence provided tentative support for the hypothesis that psychotherapy was more efficient than usual care and suggested a modest cost-effectiveness advantage in favour of CBT.

Low overall quality scores were recorded for many of the trials. Methodological problems were noted relating to the randomisation and allocation procedures, exclusion of randomised patients, sample size, use of concurrent treatments, investigator bias, monitoring of therapist adherence and use of broader outcome measures (e.g. quality of life). Interpretation of the findings was further limited by the identification of probable bias in the funnel plots and heterogeneity and sensitivity analyses. Doubt exists as to the generalisability of the trials identified to UK primary care settings in terms of socio-demographic characteristics, severity of disorder, motivation of participants and therapy type.

## Conclusions

### Implications of the review for healthcare

Based on the best available evidence, it would appear that some forms of brief psychological treatments, particularly those derived from cognitive/behavioural models, are beneficial in the treatment of people with depression being managed outside hospital settings. Little can be said about the efficacy of different types of individual versus group therapy because all the trials comparing these formats used CT or BT. In these trials, greater efficacy for individual formats was suggested.

Baseline severity, the methods used to identify patients and possibly the number of sessions offered are factors likely to affect outcome. Little can be said about the potential impact of socio-demographic characteristics of patients, the specific effects of client motivation and therapeutic alliance, any potential adverse events associated with psychological treatments, the short- and long-term outcomes of psychological treatments, the differential effects of alternative models, particularly PDT and client-centred therapies, or the immediate and long-term economic consequences attached to the provision of psychological treatments in primary care.

### Implications for research

Further trials of all types of psychological treatments in primary care settings involving



appropriately recruited representative patient samples, whose disorders have been recognised and who meet the diagnostic criteria for depressive disorder, are required. RCTs examining both immediate and long-term outcomes and cost implications and trials, both brief and long term, of PDT or client-centred therapies (using manualised/standardised techniques), and of different psychological treatments in individual versus group formats are required. Future trials need to be adequately powered, involve longer follow-up, properly monitor adherence to therapeutic technique, incorporate outcomes

measuring the broader impact of treatment, provide adequately powered high-quality cost data and record and allow for the use of any non-randomised concomitant treatments.

### Publication

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# NHS R&D HTA Programme

The NHS R&D Health Technology Assessment (HTA) Programme was set up in 1993 to ensure that high-quality research information on the costs, effectiveness and broader impact of health technologies is produced in the most efficient way for those who use, manage and provide care in the NHS.

Initially, six HTA panels (pharmaceuticals, acute sector, primary and community care, diagnostics and imaging, population screening, methodology) helped to set the research priorities for the HTA Programme. However, during the past few years there have been a number of changes in and around NHS R&D, such as the establishment of the National Institute for Clinical Excellence (NICE) and the creation of three new research programmes: Service Delivery and Organisation (SDO); New and Emerging Applications of Technology (NEAT); and the Methodology Programme.

This has meant that the HTA panels can now focus more explicitly on health technologies ('health technologies' are broadly defined to include all interventions used to promote health, prevent and treat disease, and improve rehabilitation and long-term care) rather than settings of care. Therefore the panel structure has been redefined and replaced by three new panels: Pharmaceuticals; Therapeutic Procedures (including devices and operations); and Diagnostic Technologies and Screening.

The HTA Programme will continue to commission both primary and secondary research. The HTA Commissioning Board, supported by the National Coordinating Centre for Health Technology Assessment (NCCHTA), will consider and advise the Programme Director on the best research projects to pursue in order to address the research priorities identified by the three HTA panels.

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