Review: cognitive behavioural therapy is an effective treatment for depression, panic disorder, and generalised anxiety disorder, but may be less effective in severe cases

Q **Is cognitive behavioural therapy effective for the treatment of depression, panic disorder, and generalised anxiety disorder, and what factors affect outcome?**

METHODS

Design: Systematic review with meta-analysis and meta-regression.

Data sources: Existing meta-analyses of cognitive behavioural therapy (CBT) for depression, panic disorder, and generalised anxiety disorder (GAD), and searches of MEDLINE and the Cochrane Collaboration Trials Register up to November 2002.

Study selection and analysis: The review included randomised controlled trials of (RCTs) of CBT, behavioural therapy, or cognitive therapy with a wait list, no treatment, attention placebo, or pill placebo control group. Participants were aged 18 or over with DSM-III or DSM-III-R major depression or dysthymia (excluding psychotic disorder and bipolar disorder), panic disorder or DSM-III-R or DSM-IV generalised anxiety disorder. RCTs were only included if means and standard deviations were reported for continuous outcome measures, to enable the calculation of effect sizes. Effect sizes for each study were calculated using Hedges' adjusted g, by averaging across the relevant outcome measures. These effect sizes were then pooled to produce overall effect sizes, and a meta-regression was performed for the effect size for all studies.

Outcomes: Effect sizes pooled continuous measures of symptoms, functioning, and quality of life.

MAIN RESULTS

A total of 33 RCTs met the inclusion criteria, representing 52 treatment versus control comparisons. CBT had a moderate to large effect size overall (0.68, 95% CI 0.51 to 0.84), but there was significant heterogeneity among studies (p<0.001). Multivariate regression analysis found that the inclusion of people with severe disorders significantly reduced effect size (p = 0.048). It also found that the type of control group used significantly contributed to effect size (p = 0.002), with RCTs using an attention placebo having smaller effect sizes than RCTs with a wait list control. Effect sizes did not differ significantly for the different disorders. The effect size for depression was 0.77 (95% CI 0.44 to 1.10; 11 RCTs, 17 comparisons), the effect size for panic disorder was 0.64 (95% CI 0.43 to 0.86; 19 RCTs, 30 comparisons), and the effect size for GAD was 0.64 (95% CI 0.28 to 1.00; 3 RCTs, 5 comparisons).

CONCLUSIONS

CBT is an effective treatment for depression, panic disorder, and GAD. CBT may be less effective when used in people with severe disorders, or when compared to an attention placebo.

NOTES

Studies were classified as including people with severe disorders based on whether a specific statement to this effect was made in the

paper. Therefore the accuracy of these results depends on the quality of reporting in the trials. The definition of severity may have varied between trials.

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Commentary

This study attempted to identify clinical predictors of improvement in trials of cognitive behavior therapy (CBT) for depression, panic disorder, and generalised anxiety disorder. Although research has consistently shown that CBT is effective for treating a wide variety of disorders,[1] there is little information on factors that reliably increase or decrease the effects of the treatment. This situation may account for why treatment decisions all too often are made based on clinical lore, instead of sound evidence-based reasoning.

The authors found that the type of comparison condition used in CBT trials was the best predictor of the size of the treatment effect. Not surprisingly, people assigned to a ''wait list'' control condition were less likely to improve. Unfortunately, this finding provides little clinically useful information, other than confirming the notion that a credible treatment is better than no treatment at all for most people with depression and anxiety.[2] The meta-analysis also found that the severity of illness affected study results, with smaller treatment effects found in more severe samples. However, the authors were unable to fully examine this relation given limitations with their data. Results only clearly demonstrated that severity affected the efficacy of CBT for depression. It should be emphasised that more severe patients still showed substantial improvement following treatment.

The authors attempted to examine many other potentially relevant factors (for example, treatment length, treatment modality, level of therapist training), but results did not verify their specific impact on outcome. The lack of significant findings for at least some of these variables was probably due to low statistical power, and therefore the results should be interpreted with caution. These and other limitations in the meta-analysis demonstrate the urgent need for more systematic research to be conducted on predictors of outcome in CBT. However, this study is still helpful for highlighting the fact that many variables commonly believed to have a substantial impact on the course of treatment probably do not.

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1 Butler AC, Chapman JE, Forman EM, *et al.* The empirical status of cognitive-behavioral therapy: a review of meta-analyses. *Clin Psychol Rev* 2006;**26**:17–31.

2 Herbert JD, Gaudiano BA. Moving from empirically supported treatment lists to practice guidelines in psychotherapy: the role of the placebo concept. *J Clin Psychol* 2005;**61**:893–908.