Psychological treatment of anxiety in primary care: a meta-analysis

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CRD summary
This review concluded that there was a moderate effect size for psychological treatment of anxiety disorders in primary care. While the review was reasonably well conducted, the reliability of the conclusion was uncertain due to low numbers of patients, potential bias within studies, known variability between studies and suspicion that some small studies with negative results were missed.

Authors' objectives
To assess the effectiveness of psychological therapies for anxiety disorders in primary care.

Searching
PubMed, EMBASE, PsychINFO and the Cochrane Central Register of Controlled Trials (CENTRAL) were searched up to July 2010. Search terms were reported. References of relevant studies were also checked. Only published studies were eligible for inclusion but there were no language restrictions.

Study selection
Randomised controlled trials (RCTs) of psychological therapies in primary care for anxiety disorders or increased levels of anxiety symptoms were eligible for inclusion. Psychological therapies were defined as having verbal communication between therapist and client as a core element or as a supportive element in a programme which the client worked through. Anxiety disorders had to be diagnosed based on Diagnostic and Statistical Manual (DSM) criteria; increased anxiety symptoms had to be based on the result of an anxiety questionnaire. Patients under 18 years old, in-patients and patients who were also depressed were excluded from the review. Studies of care programmes where the psychological therapy component could not be distinguished were also excluded, as were studies where an effect size could not be calculated.

Included studies enrolled patients with generalised anxiety disorder, panic disorder, social phobia or a combination of generalised anxiety and panic disorder. Most studies enrolled adults aged between 18 and 65 years; a quarter looked at older adults aged over 65 years. Most studies assessed cognitive behavioural therapy (CBT), others looked at exposure therapy, modular psychotherapy or an anxiety management booklet. Control conditions were waiting list, care as usual or placebo. Most treatment was provided by psychologists and most patients were referred for treatment by a general practitioner (GP).

The authors did not state how many reviewers selected the studies for the review.

Assessment of study quality
Two reviewers independently assessed the studies using the Cochrane risk of bias tool. Disagreements were resolved through discussion.

Data extraction
Data were extracted on variables relating to the recruitment methods and the type and delivery of therapy. Data from pharmacotherapy groups were not extracted. Baseline and outcome data were used to calculate an effect size for the intervention. The authors did not state how many reviewers carried out the data extraction.

Methods of synthesis
Pooled effect sizes were calculated using both fixed-effect and random-effects models. Statistical differences between the studies were assessed using X² and I². Publication bias was assessed using funnel plot analysis, Egger's test and the Duval and Tweedie trim and fill method. Subgroup analyses were used to assess the impact of therapy type (CBT versus other therapies); type of control group (care as usual versus, waiting list versus placebo); treatment providers (clinical psychologist versus others), referral method (screening versus referral), type of disorder (generalised anxiety versus other) and number of treatment sessions (up to seven versus more than seven). A meta-regression was also used to look
at the effect of number of sessions on treatment outcome.

**Results of the review**

Twelve RCTs including a total of 759 patients were included in the review. Only one of the studies met all quality criteria. The most common shortcomings were lack of independent blinded outcome assessment and inadequate reporting of randomisation and allocation concealment.

The overall effect size for the post-treatment reduction of symptoms of anxiety, using a random-effects model, was 0.57 (95% CI 0.29 to 0.84), which indicated a medium effect. Heterogeneity was moderate to high ($I^2$=58.5%). Longer term data were available from a minority of studies. After six months the effect size was 0.29 (95% CI 0.07 to 0.52; three RCTs; $I^2$=0%) and after 12 months it was 0.14 (95% CI -0.11 to 0.38; two RCT; $I^2$=0%). The subgroup analyses indicated that effect sizes were higher for CBT, for interventions delivered after GP referral, and treatment delivered by clinical psychologists. There were also larger effects when waiting lists or placebo controls were used. Number of treatment sessions and type of disorder were not associated with significant differences in outcome.

Publication bias was strongly suspected: the funnel plots showed significant asymmetry, Egger’s test was statistically significant and the Duval and Tweedie approach suggested that there were potentially three missing studies. Imputation of the results of these potentially missing studies produced an overall effect size of 0.37 (95% CI 0.08 to 0.67).

**Authors' conclusions**

There was a moderate effect size for the psychological treatment of anxiety disorders in primary care.

**CRD commentary**

The review question was clear and supported by explicit inclusion criteria. The search was reasonably extensive. However, it appeared that there was reason to strongly suspect the presence of publication bias, which may have led to an overestimation of the treatment effect. The studies were appraised using a suitable quality assessment tool which identified potential for bias in almost all of the included trials. The authors reported performing this assessment in duplicate but did not report whether similar methods were used at other stages of the review process.

There were considerable differences between the interventions and populations of the included studies. These differences appeared to be reflected in the statistical heterogeneity associated with the pooled treatment effect. A large number of subgroup analyses were used to explore this heterogeneity; it was not clear if these were pre-specified or not.

The review was reasonably well-conducted. However, there are reasons to regard the overall result as subject to uncertainty. These include the high probability of publication bias, the relatively small number of patients in the included studies, the potential for bias in the designs of these studies, and the evidence of significant heterogeneity between studies.

**Implications of the review for practice and research**

**Practice:** The authors stated that it was advisable to provide the least intensive treatment to patients with the lowest chronicity risk and more intensive treatment to those who have a higher risk of their disorder being or becoming chronic. They also stated that it was important to monitor patients with chronic anxiety after their primary care treatment.

**Research:** The authors stated that further studies were required to evaluate the long-term effects of psychological treatments for anxiety in primary care

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