The effectiveness of hypnosis for the treatment of anxiety: a systematic review

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CRD summary
The authors concluded that the evidence from current randomised controlled trials was insufficient to support the use of hypnosis for the treatment of anxiety. The authors' conclusion is supported by the evidence provided, but it is based on trials with small samples and of low methodological quality.

Authors' objectives
To evaluate the effectiveness of hypnosis for the treatment of anxiety.

Searching
PubMed, EMBASE, PsycINFO, Web of Science, Cochrane Central Register of Controlled Trials (CENTRAL) and AMED were searched to February 2007 with no language restrictions. Search terms were reported. Reference lists of retrieved papers were scanned for additional articles.

Study selection
Randomised controlled trials (RCTs) of either stand-alone or adjunctive hypnosis for the treatment of clinical or subclinical anxiety were eligible for inclusion. Trials of techniques related to, but distinct from, hypnosis (such as autogenic training) were excluded. To be included, trials had to have appropriate control groups, such as placebo (sham) treatments, no treatment, waiting list, or treatments not involving hypnosis. Trials also had to assess at least one outcome measuring anxiety or constructs related to an anxiety disorder, and had to conduct measurement before and at least one time point after treatment.

Interventions in the included trials included: hypnosis; group hypnosis; and hypnosis combined with cognitive behavioural therapy, routine care, or intravenous sedation. Comparison groups included: relaxation (meditational, music or progressive); cognitive behavioural therapy; systematic desensitisation and routine care; discussion or contact; intravenous sedation; psycho-physiological therapy; and waiting list. Number of sessions and duration varied widely between trials. Outcomes were measured using a wide variety of checklist and inventory scales including the State Trait Anxiety Inventory and the Impact of Event Scale. Participants in the included trials were treated for general or unspecified anxiety, anxiety related to trauma, phobia, and test or examination anxiety. The average age of the included participants ranged from 12 years to 50 years, where reported. The proportion of females ranged from 45% to 81%.

Two reviewers independently selected studies for inclusion. Disagreements were resolved through discussion.

Assessment of study quality
Validity was assessed using a modified version of the Jadad scale which evaluated randomisation, double blinding, and withdrawals and drop-outs (scoring a maximum of 4 points).

Two reviewers independently assessed studies for validity.

Data extraction
Data from individual trials were extracted and used to calculate the mean difference (MD) and 95% confidence intervals (CI) for change in continuous measures, and odds ratios (OR) and 95% confidence intervals for dichotomous data. Data were extracted on between-group comparisons or were calculated if these data were missing. Data were extracted on an intent-to-treat (ITT) basis.

Two reviewers independently extracted data. Disagreements were resolved through discussion.

Methods of synthesis
Data were grouped by type of anxiety (generalised or unspecified anxiety, anxiety related to trauma, phobia or test/examination anxiety) and combined in a narrative synthesis. Additional data were provided in tables.

Results of the review
Fourteen RCTs (n=693) were included in the review. Overall the included trials were of poor methodological quality (one RCT scored 3 points, four RCTs scored 2 points, and nine RCTs scored 1 point).

Generalised or unspecified anxiety (three RCTs): One RCT reported that hypnosis was superior to both music relaxation (MD -9.40, 95% CI -16.36 to -2.44) and no treatment (MD -14.20, 95% CI -21.24 to -7.16) for reducing anxiety scores. However, one RCT reported that hypnosis was no more effective that meditation, and another RCT reported hypnosis was no more effective than no treatment.

Anxiety related to trauma (two RCTs): One RCT reported significant pre-treatment/post-treatment differences favouring hypnosis (ps<0.5) compared with waiting list for intrusion subscale of Impact of Event Scale-I, Symptom Check List-90 hostility subscale, and State Trait Anxiety Inventory state and trait scales. One RCT reported no significant differences between cognitive behavioural therapy plus hypnosis compared with cognitive behavioural therapy alone for pre-treatment/post-treatment change scores, in pre-treatment and six month follow-up change scores or at three year follow up.

Phobic anxiety (six RCTs): There were no significant differences between hypnosis groups compared with systematic desensitisation groups reported in one RCT for any outcome for the treatment of mixed phobic disorders. One RCT reported greater effectiveness in a group receiving hypnosis as part of a cognitive behavioural therapy program compared to a group receiving progressive relaxation as part of a cognitive behavioural therapy program (ps<0.05). One RCT reported a significant difference in pre-treatment/post-treatment Performance Anxiety Inventory scores for a hypnosis group compared with a control condition for the treatment of performance-related social phobia (MD -7.60, 95% CI -13.25 to -1.95). One RCT reported no significant differences between hypnosis or psycho-physiologic therapy groups for treatment of dental phobia. Insufficient data precluded analysis of two further RCTs evaluating dental phobia.

Test/examination anxiety (three RCTs): One RCT reported a significantly greater reduction in anxiety scores for hypnosis compared with attention control group for test or examination anxiety among students (MD -23.00, 95% CI -43.67 to -2.33), but there were no statistically significant differences between hypnosis and systematic desensitisation groups. Another RCT reported that post-treatment scores were significantly lower, indicating lower levels of anxiety for the hypnosis group compared to contact/participation controls (ps<0.001). While another RCT reported a significant reduction in test anxiety in school-age children for the hypnosis group compared with discussion control group in anxiety scores at post-test (MD -5.70, 95% CI -8.60 to 2.80) and at six months follow-up (MD -5.40, 95% CI -8.27 to -2.53).

Authors' conclusions
The evidence from current RCTs was insufficient to support the use of hypnosis for the treatment of anxiety.

CRD commentary
Inclusion criteria were clearly defined for intervention, comparators, outcomes and study design, but were not explicitly defined for participants. Several relevant sources were searched and efforts were made to reduce language bias. However, no attempts were made to locate unpublished studies, so the possibility of publication bias cannot be ruled out. Measures were taken to reduce reviewer errors and bias in the review methodology. Validity was assessed and the results of the assessment were reported. A narrative synthesis was appropriate given the differences between trials in terms of interventions and outcomes. The authors stated that their conclusions on effectiveness were limited by the evidence in the review, as included trials generally had small sample sizes (some groups had less than 10 participants), some trials used complex designs, and some trials conducted multiple comparisons using multiple outcome measures. The authors' conclusion is supported by the evidence provided, but it is based on trials with small samples and of low methodological quality.
Implications of the review for practice and research

**Practice:** The authors stated that the lack of evidence found to support the use of hypnosis for the treatment of anxiety has ethical implications for mainstream health care professionals and services providing hypnosis or referring patients to hypnotherapy services for these purposes. They also stated that it also raised ethical concerns relating to the provision of therapeutic hypnosis in private practices for the treatment of anxiety. This review provides data for health professionals to pass on to patients requesting information relating to hypnosis for anxiety.

**Research:** The authors stated that further high quality, sufficiently powered RCTs are required to assess the effectiveness of hypnosis (both stand-alone and as an adjunct) compared with no treatment (or no additional treatment). Future trials should also compare hypnosis with sham treatments and standard treatments of known efficacy.

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