Cognitive behavioral treatment for young children with obsessive-compulsive disorder

CRD summary
The authors concluded that preliminary evidence suggests that cognitive-behavioural treatment shows potential for treating young children with obsessive-compulsive disorder, but further research is required. Although the authors' cautious conclusions appear to reflect the limited evidence from observational data, the lack of information about individual studies and review methods hinders an adequate assessment of the robustness of these conclusions.

Authors' objectives
To evaluate the efficacy of cognitive-behavioural treatment (CBT) for the treatment of young children with obsessive compulsive disorder (OCD) and to define gaps in the research. This abstract focuses on the quantitative review of efficacy.

Searching
MEDLINE and PsycLIT were searched using the reported keywords. In addition, reference lists of articles and major reviews of OCD were screened, and experts in OCD were contacted for details of published and unpublished studies. Only studies with an English language report were included in the quantitative review.

Study selection
Study designs of evaluations included in the review
Inclusion criteria were not specified in terms of the study design. Only studies with more than 10 patients per cell were included in the quantitative review.

Specific interventions included in the review
Studies that evaluated CBT were eligible for inclusion in the review. The included studies evaluated individual, group and family CBT, and a combination of CBT plus medication.

Participants included in the review
Studies of children/adolescents aged 5 to 17 years were eligible for inclusion. It was clear that the review focused on children with OCD but the review did not define criteria for the diagnosis of OCD. A proportion of participants in most of the included studies were also on medication. The average age of the participants ranged from 11.3 to 15.2 years.

Outcomes assessed in the review
Inclusion criteria were not specified in terms of the outcomes. Studies had to report sufficient information to allow the calculation of a pre-treatment post-treatment effect size to be included in the quantitative review. All but two of the studies included in the quantitative review used Children's Yale-Brown Obsessive Compulsive Scale as the primary outcome measure; other studies used a severity rating or the National Institutes of Mental Health Obsessive Compulsive Scale.

How were decisions on the relevance of primary studies made?
The authors did not state how the papers were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
The authors did not state that they assessed validity.

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction. For each study, one baseline to post-treatment effect size was calculated for patients treated with CBT treatment, using either direct methods or a variety of described approximations.
Methods of synthesis
How were the studies combined?
A pooled mean effect size, with 95% confidence interval (CI), was calculated using a random-effects model. Each effect size was adjusted for small sample size. Rosenthal's file-drawer method was used to calculate the number of unpublished studies required for the overall effect size to be no longer statistically significant.

How were differences between studies investigated?
Separate effect sizes were calculated according to type of CBT (individual, group and family-based).

Results of the review
Twelve studies (n=234) were included in the quantitative review. The sample sizes ranged from 12 to 42.

All studies showed that CBT reduced symptoms.

The pooled effect size showed an overall large effect of CBT (effect size 1.55, 95% CI: 1.12, 1.97).

The number of unpublished studies required for the overall effect size to be no longer statistically significant (fail-safe N) was 499.

Pooled effect sizes for individual types of CBT were: for individual CBT, 1.77 (95% CI: 1.33, 2.21; based on 7 studies, n=142); for group CBT, 0.76 (95% CI: 0.34, 1.17; based on 3 studies, n=49); and for family CBT, 1.88 (95% CI: 0.15, 3.63; based on 2 studies, n=40).

Authors' conclusions
Preliminary evidence suggests that CBT shows potential for the treatment of OCD in young children, but further research is required.

CRD commentary
The review question was defined in terms of the participants and intervention; inclusion criteria were not specified for the study design or outcome. Several relevant sources were searched and attempts were made to minimise publication bias. It was unclear whether any language restrictions had been applied, so the potential for language bias cannot be assessed. The methods used to select the studies and extract the data were not described, thus it is not known whether any efforts were made to reduce reviewer error and bias. Since study validity was not assessed the results from these studies and any synthesis might not be reliable.

There was little information about the participants and some information was missing (e.g. duration and intensity of treatment), thus the generalisability of the results cannot be assessed. Pre-treatment post-treatment effect sizes were calculated using direct methods and approximations, which brings into question the accuracy of the overall results. In addition, data were obtained from what were essentially observational studies and thus subject to biases associated with observational studies. Although the authors' cautious conclusions appear to reflect the limited evidence from observational data, the lack of information about individual studies and review methods hinders an adequate assessment of the robustness of these conclusions.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated the need for more knowledge of early childhood OCD and the degree of children's understanding of treatment models, and for developmentally appropriate treatments designed specifically for young children. Research is also required to evaluate family therapy (including developmentally tailored CBT models) and to compare CBT plus stable doses of medication with CBT alone using symptom reduction, functional impairment and quality of life as outcomes. Some exploration of potential modifying variables is also required. Research into early...
interventions in sub-syndromal children could also be undertaken.

**Funding**
National Institute of Mental Health, grant number R21MH60669.

**Bibliographic details**

**PubMedID**
17241829

**DOI**
10.1016/j.biopsych.2006.12.015

**Indexing Status**
Subject indexing assigned by NLM

**MeSH**
Adolescent; Child; Cognitive Therapy; Humans; Obsessive-Compulsive Disorder /psychology /therapy; Research Design

**AccessionNumber**
12007000430

**Date bibliographic record published**
08/11/2007

**Date abstract record published**
09/08/2008

**Record Status**
This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.