Efficacy of treatments for patients with obsessive-compulsive disorder: a systematic review

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CRD summary
The author found that clomipramine and selective serotonin reuptake inhibitors (SSRIs) appeared to be of similar effectiveness for treating obsessive-compulsive disorder; clomipramine had more side effects. Atypical antipsychotic augmentation of SSRIs was effective for refractory obsessive-compulsive disorder. In view of poor reporting and methodological weakness in the review, these conclusions do not appear reliable.

Authors' objectives
To determine the effectiveness of pharmacological treatments for obsessive-compulsive disorder.

Searching
KISS (Koreanstudies Information Service System), ProQuest, PsycINFO, PubMed, Science Direct and Wiley InterScience were searched for studies published between 1996 and 2007. EBSCO EJS search function was used.

Study selection
Studies of clomipramine, selective serotonin reuptake inhibitors (SSRIs) and atypical antipsychotics for treating obsessive-compulsive disorder were eligible for inclusion. The outcomes of interest were treatment effectiveness and maintenance of remission. Studies that included participants with comorbid disorders were excluded.

Interventions in the review included tricyclic antidepressants (clomipramine), SSRIs (fluvoxamine, sertraline, fluoxetine, citalopram, escitalopram) and (for treatment of refractory obsessive compulsive disorder) augmentation of SSRIs with atypical antipsychotics (risperidone, quetiapine, olanzapine, amisulpride) or benzodiazepines (clonazepam). Drug doses varied widely. Most studies were eight to 16 weeks' duration (range six to 52 weeks). Interventions were compared versus either each other or placebo. Review outcomes were measured using a five-point Likert scale, either Yale-Brown Obsessive-Compulsive Scale (Y-BOCS) or the children's version of this scale (CY-BOCS).

The author reviewed the abstracts and selected the studies.

Assessment of study quality
Study quality was evaluated using the Jadad scale, which assessed the adequacy of reported randomisation, double-blinding, and withdrawals or dropouts. Each study was awarded a score out of a maximum of 5 points. The author did not state how the assessment was performed.

Data extraction
The mean within-group difference between pre- and post-test Y-BOCS scores was extracted for each active intervention in each study. Where primary studies compared two active interventions, the mean differences for each intervention were compared descriptively.

The author stated neither how the data were extracted for the review nor how many reviewers performed the data extraction.

Methods of synthesis
Studies were combined in a narrative synthesis organised by intervention and which presented the range of effect sizes reported for each intervention. The text was supported by a table of results.

Results of the review
Twenty-five studies were included in the review (n=2,752, range 10 to 620). Jadad scores ranged from 1 to 5 points.

The range of reductions in the Y-BOCS score for each type of monotherapy were: clomipramine 7.3 to 12.0 (four
studies); fluvoxamine 3.9 to 12.3 (four studies); sertraline 7.9 to 16.5 (six studies); fluoxetine 9.7 to 16.4 (three studies); citalopram 18.2 (one study); and escitalopram 11.6 to 15.7 (two studies).

Reductions were greater with sertraline than with clomipramine (14.3 versus 11.7; one study), similar between fluvoxamine and clomipramine (7.7 versus 7.3 and 12.3 versus 12.0; two studies) and greater with clomipramine than fluoxetine (8.9 versus 7.5; one study). Clomipramine was associated with more premature withdrawals due to adverse effects (18 versus nine; one study, n=227).

Augmentation therapy for refractory obsessive-compulsive disorder was associated with a range of reductions in Y-BOCS scores: SSRI plus risperidone 8.7 to 9.0 (three studies); SSRI plus olanzapine 7.0 to 11.3 (three studies); SSRI plus quetiapine 3.4 to 10.7 (six studies); SSRI plus amisulpride 14.2 (one study); and SSRI plus clonazepam 5.7 (one study).

**Authors' conclusions**
Clomipramine and SSRIs appeared to be of similar effectiveness as first-line treatments for obsessive-compulsive disorder; clomipramine had more side effects. Atypical antipsychotic augmentation of SSRIs was effective for refractory obsessive-compulsive disorder.

**CRD commentary**
The objectives and inclusion criteria of the review were clear in most respects, but there were no explicit inclusion criteria for study design. Relevant sources were searched for studies. It appeared that no specific efforts were made to retrieve unpublished studies. It was not stated whether the search was restricted by language. It did not appear that steps were taken to minimise the risk of reviewer bias and error by having more than one reviewer independently undertake the processes of study selection, validity assessment and data extraction (it seems unlikely that such precautions were taken, as the review had a single author). No information was provided about participant characteristics (such as age) or study methodology (such as design, drop-out rates and allocation concealment). Maintenance of remission was not systematically reported as an outcome. Some information on adverse effects was reported, but it was unclear whether data on this outcome were systematically extracted. Within-group rather than between-group effects were reported, which meant that placebo effects were not taken into account and that the effects of randomisation were nullified. No statistical measures of significance or confidence intervals were reported and the clinical significance of the effect sizes was unclear. Heterogeneity was not explored. In view of poor reporting and methodological weakness in the review, the author's conclusions do not appear reliable.

**Implications of the review for practice and research**
**Practice:** The author stated that fluvoxamine and sertraline were both suitable as first-line pharmacological therapies, provided they were given for an adequate length of time. Augmentation with risperidone, olanzapine or quetiapine was recommended for refractory obsessive compulsive disorder.

**Research:** The author noted that studies of pharmacological interventions must administer an effective dose for at least eight weeks.

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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.