Interventions to improve management of anxiety disorders in general practice: a systematic review


CRD summary
This review evaluated interventions to improve general practitioners' diagnosis and management of anxiety disorders. The authors concluded that the quality of care can be improved, with professional and organisational interventions that involve an external expert showing most promise. A more cautious conclusion may have been more appropriate given the small number of included studies which were of variable quality and assessed multiple outcomes.

Authors' objectives
To determine the effectiveness of interventions to improve general practitioners' (GPs) recognition, diagnosis and management of patients with anxiety disorders.

Searching
MEDLINE, EMBASE, PsycINFO and the Cochrane Controlled Trials Register (Cochrane Library, Issue 1, 2003) were searched from 1966 to January 2003 using a strategy outlined in the paper. Only English language publications were eligible. The reference lists of included studies and reviews were also checked.

Study selection

Study designs of evaluations included in the review
Randomised controlled trials (RCTs), controlled before-and-after trials and interrupted time series were eligible for inclusion.

Specific interventions included in the review
Studies of professional, organisational, financial and regulatory quality improvement interventions aimed at improving the recognition, diagnosis and management of patients by GPs or other general practice care professionals were eligible for inclusion. The included studies used three types of professional interventions (audit and feedback, brief education and educational outreach) and two types of organisational interventions (collaborative care and nurse substitution); some organisational interventions included an educational component.

Participants included in the review
Studies of patients in general practice who had an anxiety disorder (with or without co-morbid depression) were eligible for inclusion. Anxiety disorders had to be defined according to the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM). Some of the included studies used both patients and providers as the participants, while others used providers.

Outcomes assessed in the review
The primary review outcomes were anxiety measures, diagnosis, prescription and referrals. The secondary review outcomes were other measures of patient and process-of-care effects (e.g. social functioning and other management outcomes). The included studies used a variety of tools to measure anxiety (details were reported).

How were decisions on the relevance of primary studies made?
Two reviewers independently selected studies for inclusion. Any disagreements were resolved through discussion with a third reviewer to reach consensus.

Assessment of study quality
The studies were assessed on the basis of eight methodological criteria: power calculations; concealment of allocation;
follow-up of the patients; follow-up of professionals; blinded assessment of the primary outcome measures; comparability of the control and intervention groups at baseline; reliability of primary effect measures; and protection against contamination. Two reviewers independently assessed the studies for validity. Any disagreements were resolved through discussion with a third reviewer to reach consensus.

Data extraction
Two reviewers independently extracted the data into a standardised form. Any disagreements were resolved through discussion with a third reviewer to reach consensus. The absolute difference and the standardised mean difference (SMD) for continuous outcomes and risk ratios (RRs) for dichotomised outcomes were calculated, with their respective 95% confidence intervals (CIs) where possible, using the original data. The absolute difference and the difference in change scores were calculated in the absence of original data.

Methods of synthesis
How were the studies combined?
The studies were combined in a narrative, grouped by type of intervention (professional or organisational) and outcome measure (process of care and patient effect measure).

How were differences between studies investigated?
Some study differences were discussed in the paper, while others were evident from the table of included studies.

Results of the review
Seven studies (eight publications) were included: 6 RCTs and 1 controlled before-and-after study. The sample sizes ranged from 67 to 618 patients and from 20 to 286 care providers.

The methodological quality of the studies varied greatly. Methodological problems included lack of clarity about follow-up, unclear concealment of allocation, lack of a power calculation and lack of comparison of treatment groups at baseline. In all but one of the included studies, the outcome assessor was blind to the treatment allocation.

Organisational interventions (3 studies).
Anxiety measures (3 studies): improvements in the main problem and the fear questionnaire for global phobia, phobia and anxiety-depression were found with a nurse substitution intervention (1 study); more patients recovered (on the Panic Disorder Severity Scale and the Anxiety Severity Index) and there were more anxiety-free-days per patient with a collaborative care intervention (1 study); and there was no difference between collaborative care and control in recovery rates (on the Shedler Quick Diagnostics Panel) with the other collaborative care intervention (1 study).

Process-of-care measures (1 study): this study found no significant difference in the use of appropriate medication, adequate dosage duration, or the proportion of patients complying with medication with a collaborative care intervention.

Professional interventions (4 studies).
Anxiety measures (1 study): this study of audit and feedback reported no difference with the intervention when using the Global Severity Index, Highest Anxiety Subscale or SF-36, but reported greater improvements for Global Anxiety Score (SMD -0.18, 95% CI: -0.35, -0.01) and self-reported anxiety symptoms (RR 1.25, 95% CI: 1.01, 1.53).

Process-of-care measures for diagnosis (2 studies): the studies reported significantly increased recognition of symptoms and chart notation with an audit and feedback intervention (1 study), and significantly increased diagnosis of agoraphobia with panic attacks, panic disorder, generalised anxiety disorder and adjustment disorder with anxious mood with a brief education intervention (1 study).

Process-of-care measures for management (4 studies): 1 study found no increase in prescription rates with audit and feedback, while 2 studies reported no consistent effects on prescription rates with educational outreach interventions.
The only study assessing referral reported that an audit and feedback intervention significantly increased referrals compared with a control intervention (RR 2.94, 95% CI: 1.33, 6.51).

In 3 of the 4 studies of professional interventions and in all 3 studies of organisational interventions, an external expert provided education or actively participated in the care of patients with anxiety disorders.

**Authors' conclusions**
The quality of care for patients with anxiety can be improved. The most promising interventions seem to be combinations of professional and organisational interventions that involved an external expert. Additional research is warranted.

**CRD commentary**
The review question was well-defined with clear inclusion criteria. Although several electronic databases were searched, the restriction to studies reported in English might have resulted in incomplete retrieval of the available dataset and the potential for language bias. Some attempts were made to locate unpublished studies, thus reducing the potential for publication bias. Appropriate steps were taken to minimise the potential for bias or error in the study selection, quality assessment and data extraction processes. Study validity was assessed using defined criteria. However, the results of the validity assessment were not used to inform the discussion of the findings and the findings from studies were not differentiated, even by study design.

Given the variety of different interventions and outcomes assessed, the studies were appropriately combined in a narrative. The authors reported that some studies assessed several outcomes and some used several different tools to assess comparable outcome measures. The assessment of multiple outcomes increases the likelihood of at least one positive finding per study and can lead to selective reporting of only positive results. The authors' conclusion follows from the findings, however, the quality of the included studies was variable and these conclusions must therefore be interpreted with caution. A more cautious conclusion might have been more appropriate given that the findings were based on a small number of studies of variable quality and which assessed multiple outcomes.

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

Research: The authors stated that research with long-term follow-up is required to determine whether multifaceted professional and organisational interventions improve the diagnosis and management of patients with anxiety disorders with and without co-morbid depression. The authors also advised that future studies should use validated instruments, use interventions that take account of barriers experienced by GPs, and undertake economic evaluations and feasibility studies.

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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.