What is the role of consultation-liaison psychiatry in the management of depression in primary care? A systematic review and meta-analysis
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CRD summary
This review concluded that consultation-liaison services provided by mental health professionals in support of primary care professionals in the management of people with depression did not appear to be more effective than usual care. Weaknesses in the review process, analysis and trial quality mean that the extent to which the authors’ conclusions are reliable is unclear.

Authors’ objectives
To assess the effectiveness of consultation-liaison services involving mental health professionals working to advise and support primary care professionals in the management of depression.

Searching
MEDLINE, EMBASE and PsycINFO were searched from inception to July 2008 for peer-reviewed publications in English. Search terms were not reported, but the search strategy was available on request. Reference lists of retrieved papers and relevant journals were reviewed.

Study selection
Randomised controlled trials (RCTs) and cluster-randomised trials of consultation-liaison interventions for adult primary care patients with a diagnosis or symptoms of depression were eligible for inclusion. Consultation-liaison was defined as an intervention where patients were seen once or twice by a mental health professional for assessment (consultation), and with advice to the primary care professional about management (liaison), where no treatment was provided by the mental health professional.

The main outcomes were measures of process of care (likelihood of prescription of an antidepressant) and depression outcomes.

In most of the included trials, patients were recruited by screening for signs/symptoms of depression. Included patients had depressive disorders (one trial), high levels of depressive symptoms (three trials) and were distressed high utilisers (one trial).

The content and process of the consultation-liaison interventions varied between the included trials. The level of interaction between the primary health care professionals and specialist for each patient varied from a single written note report, to joint meetings and a series of up to three discussions. In over half of the included trials, psychiatrists provided the initial assessment of patients; in one trial each a mental health professional and a depression care manager were used for the initial assessment. Comparator treatments included usual care, problem-solving therapy, and specialist involvement without treatment recommendations.

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

Assessment of study quality
The quality of the included trials was assessed using the Cochrane Collaboration criteria for quality assessment. Criteria included randomisation, allocation concealment, blinded outcome assessment, and completeness of outcome data; these were assessed as adequate, inadequate, or unclear.

The authors did not state how many reviewers assessed quality of the included studies.

Data extraction
Means and standard deviations (SDs) were calculated for depression outcomes, adjusted for baseline differences if
reported, or from other relevant statistics. Mean and standard deviation depression outcomes that were reported as dichotomous data (remission or response to treatment) were converted into standardised mean difference (SMD) and standard errors (SEs). Data on antidepressant use were extracted as relative risk (RR) with 95% confidence interval (CI). For cluster randomised studies that did not report an intra-cluster correlation coefficient, a value of 0.02 was imputed. Where possible, data were divided into short-term outcomes (less than 12 months) and long-term outcomes (12 months or more).

One reviewer extracted the data, which was checked by a second reviewer. Discrepancies between reviewers were resolved by discussion.

**Methods of synthesis**

Data on depression outcome were pooled as standardised mean difference with standard errors using random-effects model. Data on antidepressant use were pooled as relative risks with 95% confidence intervals using random-effects model. Where authors properly accounted for effect of clustering in their analysis, cluster randomised trials were included in the overall effect estimates in the meta-analysis.

Heterogeneity between studies was assessed using $I^2$ statistic.

**Results of the review**

Three RCTs and two cluster randomised trials met the inclusion criteria (n=1,065 participants, range 92 to 375). Only one trial described using concealed allocation. No trials were blinded. The attrition rate ranged from 3 to 32%; sometimes the losses were differential between trial arms.

There was no significant effect of consultation-liaison interventions on antidepressants use (RR 1.23, 95% CI 0.91 to 1.66; one RCT and two cluster randomised trials, n=718 participants; $I^2=53.6\%$).

Consultation-liaison services did not improve short-term depression outcomes significantly compared with usual care (SMD -0.04, 95% CI -0.21 to 0.14; one RCT and two cluster randomised trials, n=721 participants; $I^2=0\%$).

Long-term depression outcomes were not significantly better than usual care (SMD 0.06, 95% CI -0.13 to 0.26; one RCT and two cluster randomised trials, n=560 participants; $I^2=0\%$).

**Authors’ conclusions**

Consultation-liaison services for the management of adult primary care patients did not appear to be more effective than usual care, although the available evidence was limited.

**CRD commentary**

This review addressed a broad but well-defined question in terms of participants, interventions and outcomes. The search included appropriate databases, but it was restricted to peer-reviewed English publications, so publication and language biases could not be ruled out. The number of reviewers that selected or assessed quality of the included studies was not reported, so errors and biases during these review processes could not be ruled out.

The meta-analysis pooled RCTs and cluster randomised trials for the overall effect estimates. Very little detail was provided about which depression outcomes were used or how they varied between trials; results for individual trials were not reported. The pooling of dichotomous outcome data converted to standardised mean differences appeared questionable.

Weaknesses in the review process, the analyses and the limited quality of the primary trials mean that the extent to which the authors’ conclusions are reliable is unclear.

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

**Practice:** The authors stated that, as currently delivered, consultation-liaison offers few advantages over routine care in
the management of depression, and that those who manage to deliver services have to face the fact that the promise of more efficient models of care delivery has not been realised, and that effective care for depression may require a significant increase in resources to deliver improvements in outcomes.

Research: The authors stated that research with long follow-up is needed in order to examine the long-term benefits of consultation-liaison services which develop over time, and that these studies should explore the mechanisms by which consultation-liaison might be made more effective, including the potential role of combination with other models of care, and in other patient populations.

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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.