Effectiveness of collaborative care in patients with combined physical disorders and depression or anxiety disorder: a systematic review and meta-analysis

Jonna van Eck van der Sluijs, Hilde Castelijns, Vera Eijsbroek, Christina van der Feltz-Cornelis

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Review question(s)
What is the effect of collaborative care on physical disorders in patients with combined physical disorders and depression or anxiety disorder, compared to care as usual?

Searches
The search strategies will be applied by the authors. Papers not published in English or Dutch will be excluded from this review. No date restrictions will be imposed on the studies. We will search the PubMed database. Details of the search strategy are provided below. Additional studies will be identified from the reference list of three systematic reviews with related topics.

Details of the search strategy:

1 Somatic symptoms

2 Depression or anxiety disorder

3 Collaborative care

Appropriate variations of these terms for the PubMed database were used as well.

Studies published up to the date the search is run will be sought. The search will be re-run just before the final analyses and further studies retrieved for inclusion. The search was last run at 31-12-2015.

Beside this, we will screen all references of the following three reviews:


In addition to this, possible relevant papers that the authors knew of have also been added.

Types of study to be included
We will include randomised controlled trials (RCTs).
**Condition or domain being studied**
Physical disorders in patients with concomitant depression and anxiety disorder. Method of treatment is collaborative care.

Archer et al (2012) give the following descriptions: ‘Many people suffer from depression and anxiety. These problems can make people feel sad, scared and even suicidal, and can affect their work, their relationships and their quality of life. Depression and anxiety can occur because of personal, financial, social or health problems.’

‘Collaborative care’ is an innovative way of treating depression and anxiety. It involves a number of health professionals working with a patient to help them overcome their problems. Collaborative care often involves a medical doctor, a case manager (with training in depression and anxiety), and a mental health specialist such as a psychiatrist. The case manager has regular contact with the person and organises care, together with the medical doctor and specialist. The case manager may offer help with medication, or access to a ‘talking therapy’ to help the patient get better.’

Physical disorders are for example respiratory disorders, cardiovascular disorders, intestinal problems, diabetes, thyroid disorder, chronic back pain, arthritis, migraine and cancer (van Eck van der Sluijs et al. 2015). The presence of more than one physical disorder at the same time is called multimorbidity.

**Participants/ population**
Persons with both a physical disorder and a diagnosis of depression or anxiety disorder.

The participants are adults (aged 18 years or up).

**Intervention(s), exposure(s)**
To be included, studies must evaluate the effect of collaborative care when given to patients with combined physical disorders and depression or anxiety disorder. Studies reporting the effects of collaborative care on multiple outcomes will be included if the physical disorder is one of the outcomes of interest. Several models of collaborative care exist. We defined an intervention as collaborative care if at least two of the following three are involved in the treatment:

- General Practitioner
- Psychiatrist (consultant)
- Care-manager

We will evaluate the following collaborative care models:

- Treatment provided by care manager and somatic physician (general practitioner or somatic medical specialist)
- Treatment provided by care manager and somatic physician and psychiatrist (consultant)

**Comparator(s)/ control**
Care as usual will be considered to be a relevant comparator.

**Context**
There were no setting limitations.

**Outcome(s)**

**Primary outcomes**
Included studies must have a physical symptom as outcome of interest. The physical symptoms had to be assessed with a valid measurement instrument.

**Secondary outcomes**
Secondary outcomes will include the depression or anxiety disorder. Valid measurement instruments had to be used for this outcome. Both reduction in symptoms and remission of the depression or anxiety disorder are valid outcome...
measures.

**Data extraction, (selection and coding)**

Titles and subsequently abstracts of studies retrieved using the search strategy and those from additional sources will be screened independently by two review authors (JES and HC) to identify studies that potentially meet the inclusion criteria outlined above. The full text of these potentially eligible studies will be retrieved and independently assessed for eligibility by two review team members (JES and HC). Any disagreement between them over the eligibility of particular studies will be resolved through discussion with a third reviewer (CFC). A flow chart will be presented.

Data will be extracted using a specifically designed data extraction form by three review authors (JES, HC and VE). Extracted data will be checked by one of the other review authors (JES, HC or VE). When discrepancies are found or when in doubt, a third review author will be consulted (CFC). The following information will be extracted from the studies: number of study participants, setting, somatic diagnosis, psychiatric diagnosis, outcome related to somatic disorder and if available outcomes related to psychiatric diagnosis.

**Risk of bias (quality) assessment**

Three review authors (JES, HC and VE) will assess the risk of bias of included studies by using the Cochrane Handbook Chapter 8 risk of bias tool items:

1. Random sequence generation: was the allocation sequence adequately generated?
2. Allocation concealment: was the allocated treatment adequately concealed from study participants and clinicians and other healthcare or research staff at the enrolment stage?
3. Blinding personnel: were the personnel involved in treatment of patients sufficiently blinded to the intervention allocation throughout the trial?
4. Blinding of outcome assessment: were the personnel assessing outcomes and analysing data sufficiently blinded to the intervention allocation throughout the trial?
5. Addressing incomplete data: were participant exclusions, attrition and incomplete outcome data adequately addressed in the published report?
6. Selective outcome reporting: is there evidence of selective outcome reporting and might this have affected the study results?
7. Other sources of bias: was the trial apparently free of any other problems that could produce a high risk of bias?

The three review authors (JES, HC and VE) will discuss their findings with each other. Any disagreement will be resolved through discussion with a fourth reviewer (CFC).

**Strategy for data synthesis**

We will provide a narrative synthesis of the findings from the included studies, structured around the intervention content, target population characteristics and type of outcome. Data will only be pooled if it is clinically meaningful and appropriate to do so. In that case we will perform a meta-analysis in which we will give pooled estimates of effects of interventions by calculating odds risks (ORs) or relative risks (RRs, for dichotomous outcomes) or Cohen Ds standardised mean differences (for continuous outcomes).

**Analysis of subgroups or subsets**

If the necessary data are available, subgroup analyses will be done for depression and anxiety disorder.

We will look at the effect of the following moderators: setting (primary care or specialized care), the physical disorder, the treatment model (treatment provided by care manager and somatic physician or by a care manager, somatic physician and psychiatrist), and the intervention provided by the care manager (monitoring or monitoring as well as providing psychotherapy).
Dissemination plans
A paper will be submitted to an international peer reviewed journal in this field. Also, the results will be presented to psychologists, psychiatrists and other medical specialists involved in treatment of patients with combined physical and mental disorders.

Contact details for further information
Ms van Eck van der Sluijs

GGz Breburg, Clinical Centre of Excellence for Body, Mind and Health
Postbus 770
5000 AT Tilburg
The Netherlands
J.vanEckvanderSluijs@ggzbreburg.nl

Organisational affiliation of the review
GGz Breburg, Clinical Centre of Excellence for Body, Mind and Health; Tilburg University, Tranzo Dept.

www.centrumlichaamgeestengezondheid.nl; http://www.tilburguniversity.edu/nl/onderzoek/instituten-enresearchgroepen/

Review team
Ms Jonna van Eck van der Sluijs, Clinical Centre of Excellence for Body, Mind and Health and Tilburg University, Tranzo Dept., The Netherlands
Ms Hilde Castelijns, GGz Breburg, Clinical Centre of Excellence for Body, Mind and Health, The Netherlands
Ms Vera Eijsbroek, GGz Breburg, Department of Residency training, The Netherlands
Professor Christina van der Feltz-Cornelis, GGz Breburg, Clinical Centre of Excellence for Body, Mind and Health and Tilburg University, Tranzo Dept., The Netherlands

Collaborators
Professor Harm van Marwijk, Centre for Primary Care, Institute of Population Health, University of Manchester, Manchester, United Kingdom
Dr Cees Rijnders, GGz Breburg, Department of Residency training, The Netherlands

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Conflicts of interest
In the past 3 years, the employer of CFC did receive grants from Eli Lilly for an independent investigator initiated trial.

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Subject indexing assigned by CRD

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Anxiety Disorders; Cooperative Behavior; Depression; Depressive Disorder; Humans

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Ongoing

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Stage of review at time of this submission

<table>
<thead>
<tr>
<th>Stage of review at time of this submission</th>
<th>Started</th>
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</tr>
</thead>
<tbody>
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<td>Preliminary searches</td>
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<td>Yes</td>
</tr>
<tr>
<td>Piloting of the study selection process</td>
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<td>Yes</td>
</tr>
<tr>
<td>Formal screening of search results against eligibility criteria</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Data extraction</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Risk of bias (quality) assessment</td>
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<td>No</td>
</tr>
<tr>
<td>Data analysis</td>
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