**Psychosocial interventions for patients with coronary artery disease: a meta-analysis**  
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**Authors' objectives**  
To assess the efficacy of psychosocial interventions for patients with coronary artery disease (CAD) using clinical, psychological and biological end points.

**Searching**  
MEDLINE was searched (search dates are unclear) and the reference lists of retrieved articles and reviews were examined.

**Study selection**  
Study designs of evaluations included in the review  
Randomised controlled trials (RCTs) were included.

Specific interventions included in the review  
Psychosocial treatments (stress management training).

Participants included in the review  
Patients with CAD were included.

Outcomes assessed in the review  
Clinical end points, i.e. mortality and morbidity (nonfatal cardiac event recurrence); subjective measures, i.e. anxiety and depression (combined into psychological distress for analysis); and intermediate biological end points, i.e. blood-pressure, heart rate and lipid levels.

How were decisions on the relevance of primary studies made?  
The authors do not state how the papers were selected for the review, or how many of the authors performed the selection. Studies had to fulfill the following criteria: documentation of CAD at the time of treatment assignment, and at least one treatment condition where patients were offered psychosocial treatment in addition to treatments offered to patients in usual care condition (defined as medication only and medication plus exercise).

**Assessment of study quality**  
The authors do not report the method used to assess validity, or how the validity assessment was performed.

**Data extraction**  
The authors do not state how the data were extracted for the review, or how many of the authors performed the data extraction.

**Methods of synthesis**  
How were the studies combined?  
Effect sizes were calculated for psychological and biological measures using Cohen's d, where each study was weighted by its degrees of freedom because of variability in sample sizes. For mortality and morbidity data, log-adjusted cross-product odds ratios (ORs) were calculated, which also tests for violations of the homogeneity of variance requirement (Mantel-Haenszel method).

How were differences between studies investigated?  
All analyses were conducted with and without the trial which did not randomise its control group.
Results of the review
Twenty-three RCTs with 3,180 patients were included; in 1 study the control group was not randomised. Not all studies presented results for each of the outcomes measured.

Patients receiving psychosocial interventions showed greater reductions in psychological distress (effect size reduction of -0.34), systolic blood-pressure (-0.24), heart rate (-0.38) and cholesterol level (-0.54). There were greater mortality and cardiac recurrence rates during the first 2 years of follow-up in patients who did not receive psychosocial treatment, with log-adjusted ORs of 1.70 (95% confidence interval, CI: 1.09, 2.64) and 1.84 (95% CI: 1.12 to 2.99) for mortality and cardiac recurrence, respectively, reflecting reductions of 41 and 46% associated with psychosocial treatment (results are from the analysis without the trial which did not randomise its control group).

Cost information
No direct information, only information from other, similar meta-analyses.

Authors' conclusions
The addition of psychosocial treatments to standard cardiac rehabilitation regimens reduces mortality and morbidity, psychological distress and some biological risk factors. The benefits were clearly evident during the first 2 years and were weaker thereafter. At the clinical level, it is recommended to include routine psychosocial treatment components in cardiac rehabilitation. The findings also suggest an urgent need to identify the specific most effective types of psychosocial interventions via controlled research.

CRD commentary
The computerised search was limited to MEDLINE and no dates were given for the search; it is, therefore, unclear how many relevant studies may have been missed. Very detailed information is presented about the methods used to calculate effect sizes, but no information is given about how the validity of the included studies was assessed.

Implications of the review for practice and research
Psychosocial interventions should be included in cardiac rehabilitation regimens.

Bibliographic details

PubMedID
8615707

Other publications of related interest

Indexing Status
Subject indexing assigned by NLM

MeSH
Coronary Disease /mortality /psychology /rehabilitation; Humans; Morbidity; Psychotherapy; Quality of Life; Stress, Psychological; Treatment Outcome

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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.