Self-care and quality of life outcomes in heart failure patients

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CRD summary
This review concluded that quality of life benefits of self-care interventions for patients with heart failure were unclear. The author's conclusion reflected the evidence presented, but the review suffered from a number of potential sources of bias, limiting the reliability of the conclusions.

Authors' objectives
To assess self-care interventions to improve quality of life in heart failure patients.

Searching
MEDLINE and CINAHL were searched from 1995 to 2007; search terms were reported. Reference lists of retrieved articles were searched for additional relevant studies. The author did not state whether any language restrictions were applied.

Study selection
Studies that assessed self-care interventions (including self-management and self-monitoring) in patients with heart failure and reported quality of life as an outcome were eligible for inclusion in the review. Studies that included self-care as an outcome, rather than as part of the intervention, were not eligible for inclusion.

In most included studies self-care interventions were part of a disease management programme and included the topics of self-monitoring, medications, lifestyle, psychological status and social support. In the studies where self care was the primary intervention, it focused on self adjustment of diuretics. Interventions were delivered either before or after hospital discharge. The duration of the intervention ranged from one month to one year. The average age of participants ranged from 58 to 79 years (where reported). The proportion of male patients ranged from 35 per cent to 95 per cent. The most commonly used quality of life measure was the Minnesota Living With Heart Failure Questionnaire (MLHFQ).

The author stated neither how the papers were selected for the review nor how many reviewers performed the selection.

Assessment of study quality
The author did not state that she assessed validity.

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

Methods of synthesis
A narrative synthesis was presented.

Results of the review
Twenty one studies (n=3,985, range 18 to 1,069) including 17 randomised controlled trials (RCTs) were included in the review. Length of follow-up ranged from two months to one year, where stated.

Nine of the 17 RCTs reported a greater improvement in quality of life in the intervention group than the usual care group. The other four studies all reported an improvement in quality of life from baseline to follow-up. Three of the six RCTs that delivered the intervention prior to hospital discharge and six of the 11 RCTs that delivered the intervention after hospital discharge reported improved quality of life in the intervention group compared with the usual care group.

Five of seven studies that had interventions lasting less than six months, and four of the ten studies that had interventions lasting more than six months reported an improvement in quality of life in the intervention group.
compared with the usual care group.

Three of the four RCTs that included patients with a mean age of less than 70 years and three of the 10 RCTs that included patients with a mean age of 70 years or higher reported improved quality of life in the intervention group compared with the usual care group.

Other results were reported.

**Authors' conclusions**

Quality of life benefits of self-care interventions for patients with heart failure were unclear. Methodological and conceptual issues may have contributed to the equivocal findings. Further research was required.

**CRD commentary**

This review addressed a clear question and was supported by appropriate inclusion criteria. Limited attempts were made to identify relevant studies, with no specific attempts made to identify unpublished research, increasing the potential for publication bias. The methods of study selection and data extraction were not described, so it was not possible to assess the potential for reviewer bias and error. The author did not appear to have formally assessed the quality of the included studies. Limited details of the included studies were presented. In view of the clinical heterogeneity between studies a narrative synthesis was appropriate. The author's conclusions reflected the evidence presented, but the review suffered from a number of potential sources of bias, limiting the reliability of the conclusions.

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

Practice: The author did not state any implications for practice.

Research: The author stated that large multicentre randomised controlled trials were required to assess the effect of self-care interventions on quality of life in heart failure patients. Careful selection of quality of life outcome measures, clear definition of terms and use of conceptual frameworks to guide self-care research is important. Self care needed to be unbundled from disease management programmes and studied as a primary intervention. Subgroups of patients should be assessed, such as patients with advanced heart failure, elderly patients, patients from different cultural, ethnic and racial backgrounds and patients with low literacy/numeracy, cognitive impairment and comorbidities.

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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.