The effectiveness of group visits for patients with heart failure on knowledge, quality of life, self-care, and readmissions: a systematic review

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CRD summary
This review concluded that group medical visits, for patients with heart failure, rather than standard one-to-one care, could improve knowledge, self-care, and quality of life, and reduce hospitalisations. The review included two small studies, with limited methods, so the authors' conclusions seem optimistic, but their recommendations for research are appropriate.

Authors' objectives
To assess the effectiveness of medical care in groups (group visits) for patients with heart failure, compared with standard one-to-one care, on patient knowledge, quality of life, self-care and hospital readmissions.

Searching
MEDLINE, EMBASE, CINAHL and Health Source: Nursing/Academic Edition were searched, for English-language studies, in September 2012; search terms were reported. Reference lists of retrieved papers were screened for additional relevant studies. The authors searched ProQuest, the Henderson Repository and the NYAM Library, and used Mednar to search the Internet, for unpublished data.

Study selection
Randomised controlled trials (RCTs), non-randomised controlled trials, and quasi-experimental trials of group visits, compared with standard one-to-one visits, for community-living adults with heart failure, were eligible for inclusion. The outcomes assessed were patient knowledge about heart failure, quality of life, self-care, unplanned hospital readmissions and emergency room visits. In the absence of controlled trials, studies with other designs were considered, such as before-and-after studies, prospective and retrospective cohort studies, and descriptive studies.

Both of the two included studies were conducted in the USA. The studies were of patients with heart failure from a cardiology practice or a heart failure clinic at a Naval Medical Centre. The group visits lasted for one or two hours, with six to eight patients plus family members or friends. Group visits were facilitated by a nurse practitioner in one study, and a multidisciplinary team in the other.

The authors did not state how many reviewers assessed study eligibility.

Assessment of study quality
Two reviewers independently assessed study quality, using standardised critical instruments from the Joanna Briggs Institute. Disagreements were resolved through discussion or consultation with a third reviewer.

For RCTs, the criteria covered randomisation, allocation concealment, blinding, withdrawals, comparability of groups at baseline, outcome assessment, and statistical analysis. For cohort studies, the criteria covered patient selection, representativeness of population, dealing with confounding factors, length of follow-up, outcome assessment, withdrawals, and statistical analysis.

Data extraction
A standardised tool from the Joanna Briggs Institute was used for data extraction. The authors did not state how many reviewers extracted the data.

Methods of synthesis
A narrative synthesis was presented.

Results of the review
Two studies were included; one was a RCT (52 participants) and the other was a cohort study (56 participants). The
longest follow-up was 16 weeks in the RCT, and six months in the cohort study. The RCT did not report adequate concealment of allocation, management of withdrawals, and blinding of patients or outcome assessors. The cohort study did not report adequate patient selection, dealing with confounding factors or withdrawals, and appropriate statistical analysis.

The RCT reported a statistically significant improvement in heart failure knowledge at eight weeks, compared with control, but this was not maintained at 16 weeks. There were no statistically significant differences in self-care and health-related quality of life, between the groups at eight and 16 weeks.

The cohort study reported statistically significant improvements in daily weight monitoring, low sodium diet, exercising three times a week, and the ability to recognise the symptoms of worsening heart failure, as measured using the Self-Care Management Index, after intervention, compared with before intervention. There was a significant decrease in the number of patients diagnosed or treated for depression after intervention, compared with before intervention. Hospital admissions for heart failure decreased from four to two.

**Authors' conclusions**
The group visit model could improve knowledge, self-care, and quality of life, and reduce hospitalisations, for patients with heart failure.

**CRD commentary**
The review question was clear. The authors searched several relevant sources for published or unpublished studies. Only English-language studies were included; the authors acknowledged the potential for language bias. It was unclear whether study selection and data extraction were carried out with attempts to minimise error and bias. Two reviewers independently assessed study quality, using appropriate criteria.

Both of the included studies were small with reasonably short follow-up, and many patients dropped out. A narrative synthesis was appropriate for the available evidence. The authors acknowledged the limited reliability of the results of the included studies. They stated that variation in methods between the two studies limited the generalisability of their findings to other populations and settings.

In view of the limited evidence, the authors' conclusions seem optimistic. Their recommendations for further research are appropriate.

**Implications of the review for practice and research**
**Practice:** The authors stated that clinicians should consider group visits, for patients with heart failure, as they allow the clinician to see many patients, over a short period, while providing education and health management.

**Research:** The authors stated that research was needed to investigate the effectiveness of group visits for patients with heart failure. It should determine the most effective format, the most effective provider team, and the best length of visit, for larger culturally diverse populations, in multiple settings.

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