Feasibility and effects of decision aids
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**Authors' objectives**
To investigate whether decision aids affect the decision-making process and patients' outcomes.

**Searching**
The authors searched MEDLINE from 1993 to August 1998 using the index terms 'decision making', 'decision support techniques', 'patient participation' and 'patient education'. The authors also used two annotated bibliographies on shared decision making and decision aids. Only full papers and papers written in English were included in the review.

**Study selection**
Study designs of evaluations included in the review
Controlled studies and non-controlled studies using simple one-group designs were included.

Specific interventions included in the review
Decision aids to assist the treatment decisions of patients, or prevention or early detection of disease. Decision aids were either:

1. Written materials.
2. Oral presentations of information combined with written and/or visual materials.
3. Video programmes.
5. Programmes in which interpersonal counselling is given to patients (often combined with written and/or visual materials).

Participants included in the review
Healthy volunteers, menopausal and postmenopausal women, pregnant women, patients at high risk for cancer, or patients with cancer, or chronic conditions such as benign prostatic hyperplasia, chronic respiratory disease, heart disease, or peptic ulcers. Patients facing or not facing decisions.

Outcomes assessed in the review
The outcomes were effects on results of decision making and influence on health outcomes (patients' knowledge, beliefs, expectations, health status, exercise of preferences, satisfaction, conflict, intention and interaction with care providers). Other outcomes assessed for the research questions not pertinent to this review were: feasibility and acceptability or acceptance, consistency of patients' treatment preferences, determinants of decision making, and decision-making process.

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 reviewers performed the selection.

Assessment of study quality
No formal quality assessment was undertaken.
Data extraction
The authors do not state how the data were extracted for the review, or how many of the reviewers performed the data extraction.

Data were extracted for the following categories: study identification and year of publication, decision aid, study design, sample characteristics, outcome variables, evaluation criteria, and results.

Methods of synthesis
How were the studies combined?
The studies were discussed in a narrative review, addressing the characteristics of participants in the studies and the review outcomes. Results were reported separately for controlled and non-controlled studies.

How were differences between studies investigated?
The authors do not state a method for assessing differences between the studies, although they do report that significant heterogeneity was observed between trials with respect to participants, sample sizes, outcome measures and instruments.

Results of the review
Thirty studies were included in the review in two groups:

1. Sixteen controlled studies, of which 14 were RCTs with 2,994 participants.
2. Fourteen non-controlled simple one-group designs with 1,503 participants.

Effects related to effectiveness were only assessed in 9 non-controlled and 13 controlled studies.

The authors report that the influence of decision aids on the treatment preferences of study participants was studied seven times, with effects reported four times.

The authors report that provision of a decision aid was related to health status in 4 studies. In one study, patients using the decision aid reported less side-effects with treatment. Another study reported participants had less role and physical limitations than did participants in the control group. A third study reported no effect on patients' health status. The fourth study found that general health and physical functioning were positively affected in patients using an interactive computer program, although social functioning, frequency of symptoms and impact of symptoms were not different compared with a control group who received written information.

All three of the non-controlled studies found that treatment preference was influenced by the decision aid.

Authors' conclusions
The authors state that decision aids were found to be feasible and acceptable to patients, and increased the agreement between patients' values and decisions, and patients' knowledge. The effects of decision aids on decisions and on patients' outcomes, including decision uncertainty, satisfaction and health, have rarely been addressed. When studied, the beneficial effects of decision aids on these outcomes appear to be rather modest.

CRD commentary
This was a poor review. The inclusion criteria were not clearly addressed. The literature search was limited by searching only one database and it was unclear whether the search was restricted to English language publications. It is possible that additional relevant studies may have been missed.

The quality of the included studies was not formally assessed and the authors have not reported how the articles were selected, or who performed the selection and data extraction.
The data extraction was reported in tables and discussed as a narrative review. Heterogeneity was not assessed formally, although the authors discussed differences between trials with respect to participants, sample sizes, outcome measures and instruments.

The authors' conclusions appear to follow from the results but, as stated by the authors, should be viewed with caution because of methodological limitations in the review process.

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

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

Research: The authors state that an explicit theoretical model of the important factors related to patients' decision making should guide the development of decision aids. The scope of studies should also be broadened to include process evaluations. Future studies should also include longer follow-up. A systematic review including a quantitative synthesis, or if possible a formal meta-analysis, is necessary to ascertain the real contributions that different types of decision aids make to the quality of health care.

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