A systematic review of interventions to improve recall of medical advice in healthcare consultations

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CRD summary
This review concluded that written and tape-recorded instructions appeared to improve patient clinical information recall from healthcare consultations, but that there was a dearth of interventions incorporating psychological theory. These cautious conclusions are supported by the data but should be interpreted with some caution given limitations in the search and quality assessment and lack of statistical and numerical data.

Authors' objectives
To review research relating to interventions designed to enhance patient recall of medical information.

Searching
MEDLINE, EMBASE, CINAHL, PsycINFO and the Cochrane Library were searched from inception to April 2007. Details of the search strategy were reported. Relevant journals and references of relevant papers/reviews were screened.

Study selection
Randomised and non-randomised controlled trials that assessed some form of specific preconceived intervention designed to affect recall or knowledge of clinical instruction, consultation, or counselling advice, in a clinical setting involving health care professional-patient interactions, that reported data on recall performance, were eligible for inclusion.

The majority of studies focused on the use of written and or audio-recorded medical instructions; other interventions assessed were adjunct questions, prompt sheets, visual aids, cognitive strategies, rehearsal, communication styles and personalised teaching. Patients in the included studies were mainly cancer patients but also included patients with a variety of other conditions, pre- and post-operative patients, parents of children and children. The length of time between information presentation and recall ranged from immediate recall to six months.

Two reviewers assessed studies for inclusion; but it was not clear if this was done independently.

Assessment of study quality
The authors did not state that they assessed validity, but some details on randomisation, allocation concealment, and power calculations were reported in the appendices (available online).

Data extraction
The authors did not state how the data were extracted for the review, or how many reviewers performed the data extraction.

Methods of synthesis
A narrative synthesis was reported with studies grouped by type of intervention.

Results of the review
Thirty four studies were included (n=3,983 participants, range 30 to 318).

Five studies reported a positive impact of audio recordings on patient clinical information recall compared with no audio recording. Five other studies did not find a positive effect.

Four studies reported that written information had a significant positive influence upon recall of clinical information/advice; three studies found no effect. Three studies compared audio with written materials; results were not reported for these. There was no significant difference in recall between patients randomised to receive written
information incorporating adjunct questions and those who received written information without adjunct questions. One study found a beneficial effect of a prompt sheet when the clinician was involved in its use; a second study found no difference in recall between those given a prompt sheet and those who were not.

Two studies reported significant beneficial effects of video aids (information video and pictogram material about medication) on patient clinical information recall compared with those in control groups; two studies found no significant benefit of a visual aid intervention.

Four studies reported significant beneficial effects of cognitive strategies (simplified instruction protocol, instructions in "elderspeak", use of mind maps and acronyms, confidence/motivational video) on patient clinical information recall compared with those in control groups. One study reported significant beneficial effects of an intervention that involved reciting the risks of surgery until the patients could do so correctly; a second study found no effect of repeated questioning.

One study reported no effects of shared decision making on patient recall of clinical information.

Two studies reported significant beneficial effects of personalised teaching/action plans on patient clinical information recall; one study found no significant beneficial effects.

**Authors' conclusions**

Written and tape-recorded instructions appeared to improve patient clinical information recall; there was a dearth of interventions incorporating psychological theory.

**CRD commentary**

The review addressed a broad question supported by clearly defined inclusion criteria. The literature search was adequate for published studies, but specific attempts were not made to locate unpublished studies and it was unclear whether language or publication restrictions were applied. Details of the review process were limited and it was not possible to determine whether appropriate steps were taken to minimise reviewer bias and error.

Study quality was not formally assessed and, although some details on randomisation and allocation concealment were reported, overall the validity of the included studies remained unclear. A narrative synthesis was appropriate given the differences between studies, but lack of details on the numerical and statistical significance of the findings made the results difficult to interpret.

The authors' cautious conclusions are supported by the data but should be interpreted with some caution given the limitations discussed.

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

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

**Research:** The authors stated that further research is required in clinical settings to determine if cognitive interventions based on a more over-arching psychological model of recall are effective and to assess the impact of newer consultation modalities (such as telephone and e-mail consulting).

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