Patient self-administration of medication: a review of the literature

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Authors' objectives
To identify the advantages and disadvantages of patient self-medication in hospital.

Searching
The following sources were searched for publications in the English language: CINAHL from 1983 to 1995; the Royal College of Nursing library database; the International Nursing Index; the Nursing Citation Index (American Journal of Nursing); and Nursing Research Abstracts (UK). The keywords used were 'self-medication' and 'self-administration of medication'.

Study selection
Study designs of evaluations included in the review
Empirical and non-empirical studies involving the implementation and subsequent evaluation of a self-medication programme. Control groups were not required and patients did not have to be randomly allocated to be included in the review.

Specific interventions included in the review
Patient self-medication programmes in or out of hospital, usually consisting of written material as well as verbal instruction. A control group was used in some studies.

Participants included in the review
Patients in, or recently discharged from, hospital. These included elderly patients, patients with rheumatic disease, patients undergoing treatment for a malignancy, patients on a renal unit and psychiatric patients.

Outcomes assessed in the review
The outcomes assessed were:

- compliance, measured by questionnaire, interview or tablet counts;
- the patients’ knowledge about the drugs they were taking, determined by interview; and
- nurse or physician satisfaction.

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.

Assessment of study quality
Ganong's framework (see Other Publications of Related Interest) was used to critique articles and to exclude those of the lowest quality. The authors do not state how the papers were assessed for validity, or how many of the authors performed the validity assessment.

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?
A narrative synthesis was undertaken.

How were differences between studies investigated?
The authors do not state how differences between the studies were investigated.

Results of the review
The authors variously state that 11 and 12 studies were found which evaluated the effects of self-medication in the clinical environment. Only 11 studies were presented in table 5 (at least 10,216 participants), whereas another was mentioned in the text, although no details were given. Ten of the 11 studies were quasi-experimental, with allocation of patients to the self-medication group and assessment of compliance; the other used 'action research' where a steering committee used feedback to modify the programme as appropriate. Eleven non-empirical studies were also reviewed.

The ‘response rates’ tabulated ranged from 33.3 to 100%, although it was unclear what these referred to. Some results from 2 of the studies were reported in the text, then the authors stated that the conclusions from all 12 (sic) studies were broadly in agreement: self-medication increased the patients’ knowledge of the names of their drugs and their drug regimes, and the frequency of administration in all the studies reported. Knowledge of side-effects did not appear to be increased. With the exception of one study, there was a positive association between the implementation of the self-medication programme and patient compliance. Patient control, empowerment and independence were enhanced in 7 studies. Written information was beneficial in all but 2 studies.

Authors’ conclusions
All studies substantiated the positive features of self-medication with the exception of increased compliance. Increased independence, trust, partnership and customised care were all demonstrated. The process of self-medication effectively simplified the drug regime and incorporated patient education. Underdosage was the most commonly reported disadvantage.

CRD commentary
The literature search was systematic, although restricted to English language publications. However, there was not much else about this review which was systematic. The review question was not completely clear and the outcomes of interest were not defined at the outset of the review; other questions which were not specified at the outset were reviewed.

Some inclusion criteria were given and there was a description of a validity assessment tool, but it was not stated which of the validity criteria a study had to meet before it was included in the review. The included studies were of a very poor quality: some of them even lacked a control group, whilst others did not state the number of patients included in the study. The included studies were unable to answer the review questions. The outcomes reported were unclear in both the tables and the text.

The authors acknowledged these methodological flaws and were suitably cautious in their conclusions. Even so, the authors themselves seemed confused about how many studies they included in their review, and gave few details of the individual studies. The review does, however, highlight the lack of good-quality research in this area, and the authors give some recommendations for future research, although their conclusions may go beyond the scope of the data presented.

Implications of the review for practice and research
The authors stated that there is a need for larger scale, rigorously controlled, multicentre studies. More specific recommendations included: examining whether self-medication programmes genuinely promote compliance by examining the placebo effect; examining nurse-patient interaction with regard to effects on the outcome; examining the perceptions of staff and patients; the importance of community follow-up; and studies to assess health gain, rather than just knowledge of medication and rates of compliance.
Bibliographic details

PubMedID
9306160

Other publications of related interest

Indexing Status
Subject indexing assigned by NLM

MeSH
Attitude of Health Personnel; Humans; Nurse-Patient Relations; Nursing Assessment; Nursing Evaluation Research; Patient Compliance; Patient Education as Topic; Research Design /standards; Self Administration /nursing /psychology /standards; Self-Care Units /organization & administration

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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.