Educational outreach visits: effects on professional practice and health-care outcomes

01 October 2008

Educational outreach visits alone, or in combination with other interventions, could be effective in improving health-care practices in a majority of circumstances. Although randomized controlled trials report variable and generally small-to-moderate benefits, such visits could potentially yield important results, especially in under-resourced settings.

RHL commentary by Costa MLB and Khanna J

1. EVIDENCE SUMMARY

This Cochrane review (1) is an update of a 1997 review (2). It includes 69 studies involving over 15 000 health-care professionals. Its objective was to evaluate the effects on the practice of health-care professionals or on patient outcomes of educational outreach visits by a trained person in his/her own setting. The purpose of face-to-face meetings between visiting experts and local health-care professionals was to provide either feedback to health-care professionals about their performance or advice them on ways of overcoming obstacles to change.

With the exception of three studies (two in Indonesia and one in Thailand), all studies included in the review were conducted in developed countries. Most studies (n=53) had primary care physicians as the health-care professionals who were visited. The most frequent behaviour studied was prescribing (n=29), followed by general management of health problems (such as patients at risk of cardiovascular disease, diabetes, asthma) and preventive services (such as counselling for smoking cessation).

The review authors grouped the included studies by four comparison types: (i) any intervention of which educational outreach visits are a part and are compared with no intervention; (ii) educational outreach visits alone compared with no intervention; (iii) any intervention of which educational outreach visits were a part compared with any other intervention, including audit and feedback and reminders; and (iv) any comparison of different types of educational outreach visits.

To evaluate the methodological quality of the 69 included trials, the review authors considered the 'risk of bias' in the trials. They judged 20 trials to have a low risk of bias, 48 to have a moderate risk of bias, and one trial to have a high risk of bias.

The review authors used risk difference (RD) in compliance to analyse the results. The median adjusted RD with desired practice was 5.6% (interquartile range 3.0%–9.0%). The adjusted RDs were highly consistent for prescribing (median 4.8%; interquartile range 3.0%–6.5% for 17 comparisons), but varied for other types of professional performance (median 6.0%; interquartile range 3.6%–16.0% for 17 comparisons).

The review found that educational outreach visits alone, or coupled with other interventions, could be effective in improving health-care practice in a majority of circumstances. However, the effect, which could
be potentially important, was variable and generally small to moderate. Compared with other interventions, such as audit and feedback (eight trials), educational outreach visits appeared to be slightly superior.

2. RELEVANCE TO UNDER-RESOURCED SETTINGS

2.1. Magnitude of the problem

Research findings designed to improve patient care and well-being can have a public health impact only if they are adopted quickly and widely and used appropriately in practice (3). Efforts to incorporate new practices into health systems often encounter many barriers, especially in low-income settings. The barriers include limited access to educational resources, poor formal training of health-care professionals and lack of opportunities for continuing medical education (4). To increase the adoption and use of new evidence-based practices in patient care a number of approaches, such as audit and feedback and educational outreach visits, have been studied in both developing and developed countries. However, it is still not known which approach, or a combination of approaches, is best for improving practice.

It is difficult to quantify the extent to which up-to-date knowledge is not being used in clinical practice, especially in under-resourced settings. One example of non-use of evidence-based knowledge, however, was highlighted in a recent study in Mexico which found that 14 out of 22 hospitals in the Mexico City metropolitan area were not using magnesium sulfate for the management of eclampsia (5).

2.2. Applicability of the results

This Cochrane review provides important information regarding educational outreach visits, which could serve as a useful tool for improving patient care, especially in under-resourced settings. Although only three of the 69 studies included in review were conducted in developing countries, this is unlikely to affect the applicability of the findings of the review to under-resourced settings. In fact, it could be argued that, because many health-care professionals in under-resourced settings lack opportunities for self-learning (owing to factors such as poor communications and poor Internet connectivity) and for attending professional meetings, educational outreach visits may be an effective way of providing new information to health-care professionals in under-resourced settings.

2.3. Implementation of the intervention

Implementing educational outreach visits should be feasible in most, if not all, under-resourced settings. Two factors would be particularly important in the implementation process, namely logistics planning and monitoring and evaluation of the performance of health clinics (and their staff) in the field. Logistics planning relates to issues such as budgeting sufficient funds for such activities, fixing visits when the target health-care professionals are present, ensuring that educational outreach visits cause minimal disturbance to the regular functioning of the health centres, and ensuring that travel arrangements are proper and cost-effective (e.g. visiting two or three health centres in the same trip). Performance monitoring and evaluation helps to ensure that those providing the training have a clear understanding of the problems related to practices in the target health centres. Where regular monitoring and evaluation processes do not exist or do not provide the type of data needed for planning educational outreach visits, evaluation studies will need to be carried out in advance to assess the performance of individual centres and relevant staff in them. Then, once the practices to be improved have been determined, appropriate trainers will have to be identified based on their knowledge of evidence-based medicine, experience of functioning within the health system, communication skills and commitment to improving health-care practices.

Specific actions to change the behaviour of health-care professionals can include measures such as: development of programmes aimed specifically at health-care professionals and “opinion leaders” among them (6); establishment of clear training objectives for educational outreach visits; establishment of credibility in the technical capacity of the visitors; encouraging health-care professionals to participate actively; use of appropriately conceived and concise educational materials; repetition of key messages; and, ideally, reinforcement of key messages through subsequent visits (7). Even though not all of the above
proposed measures have been tested, common sense suggests that these would be essential for an effective behaviour change programme.

3. RESEARCH

In the trials included in the review, there were variations in the precise composition of the educational outreach visits. Moreover, the trials used different study designs, which made trial comparisons difficult. Hence, there is a need for new trials that are methodologically well-planned to determine more conclusively the extent to which such visits are effective.

Future research should also establish the best use of educational outreach visits, especially in under-resourced settings, where a greater effectiveness of this approach is theoretically anticipated. The first commitment must be towards documentation of all interventions, with clear behaviour targets and precise outcomes, for each setting. Investigators must aim for sufficiently powerful studies that can detect small even effects, which could be important in under-resourced settings. New studies should also consider analyses of patient outcomes as well as performance of health-care professionals. It would also be useful to document the costs associated with this intervention as well as its cost-effectiveness.

Acknowledgements: None
Sources of support: None

References

- Soumerai SB, Avorn J. Principles of educational outreach (‘academic detailing’) to improve clinical decision making. JAMA 1990; 263: 549-56.