

The Journal's Role in Educating Readers

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Panelists:

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Continuing medical education (CME) programs take many forms. The effectiveness of different forms of CME in improving physician practice and patient outcome was the focus of this session.

Paul E Mazmanian summarized a review¹ of about 100 trials evaluating the extent of change resulting from different CME formats. The results showed that printed educational materials or formal programs—the most commonly offered CME formats—are ineffective.

Several other formats are effective, however. For example, outreach detailing—visits by nurses or pharmacists to physicians' offices—are more often effective than not. CME programs led by opinion leaders—physicians locally regarded as sources of reliable information—are even more effective, even if the leaders are not nationally recognized experts.

Methods of studying the effectiveness of CME are increasingly rigorous,

as evidenced by the use of randomized controlled trials. Mazmanian and coworkers² conducted a randomized controlled trial showing that motivation to change is essential in effecting change. Before attending a CME lecture, physicians were asked whether they intended to change after attending the program. Follow-up surveys showed that about half those committed to change did change, compared with about one tenth of those who had not intended to change.

Many journals offer physicians the opportunity to earn CME credits by reading articles. Thomas B Cole reviewed the *Journal of the American Medical Association (JAMA)* CME program, for which he is responsible. Staff at JAMA and the *AMA Archives Journals* decided to transform information already provided into an educational experience to improve physician performance. They also sought to attract readers and to provide needed CME credit.

An educational activity has to assess learners' needs, have clear and concise educational objectives, provide appropriate content, and be evaluated for effectiveness. For the JAMA CME program, the editorial board suggests topics, authors and peer reviewers set objectives, the editors select content, and readers evaluate their experience.

The Accreditation Council for Continuing Medical Education, which grants CME credit, allows two methods of evaluation by participants. JAMA uses the method in which readers evaluate the educational value and the readability of articles selected for CME credit. The other evaluation method is a self-administered quiz on article content.

Each JAMA issue has a CME evaluation form that readers complete and return to obtain credit. The CME data show how many physicians read each issue for CME

credit, which articles they read, and how they rate the educational value and readability of the articles. Evaluation of the data showed that the articles that readers are more likely to read are the ones that the journal is more likely to publish in the first place.

JAMA started the program in late 1997; so far, it has granted about 100,000 CME credit-hours. The program receives about 2500 responses per week—a low percentage of readers. Cole conceded that the free program is expensive. Cole also conceded that he is unsure whether the editors or editorial-board members find the CME data useful. However, JAMA's advertising sales representatives find the data useful for attracting advertisers.

Does JAMA's CME program improve physician behavior and patient outcome? Cole replied that JAMA is surveying readers who received CME credit to find out whether reading the articles led to changes in practice. Preliminary results show that most study participants reported an incremental change in learning stage, ranging from a new interest in the topic to application of new knowledge of the topic in the care of patients. JAMA's CME program is being planned for the Internet, with the intent to lower costs and increase efficiency. 

1. Davis DA, Thomson MA, Oxman AD, Haynes RB. Changing physician performance: a systematic review of the effect of continuing medical education strategies. *JAMA* 1995;274:700-5.

2. Mazmanian PE, Daffron SR, Johnson RE, Davis DA, Kantrowitz MP. Information about barriers to planned change: a randomized controlled trial involving continuing medical education lectures and commitment to change. *Acad Med* 1998;73:882-6.