

# Assessing and Addressing Readers' Continuing Medical Education Needs: Experience of a Turkish Journal

**Hakan Yaman**

## Abstract

To increase Turkish physicians' access to continuing medical education (CME), the *Journal of Continuing Medical Education (JCME)*, published by the Turkish Medical Association, provides CME in written form. The current study, intended to assess how well this journal meets readers' needs, drew on analysis of assessment forms completed by JCME readers, observations of the editorial process at the journal, and a 1-year audit of journal submissions. Article topics that readers most commonly requested included emergency medicine, psychiatry, and medical law. Submissions, however, tended to reflect the specialties most represented in academic medical settings. JCME has been working to match content more to readers' needs.

## Introduction

A primary objective of any academic or trade journal is to meet its readers' needs. That objective can be especially important when the journal provides continuing medical education (CME) for working physicians. The following article examines how one journal attempts to assess and meet its readers' CME needs.

Clinical science and medical technology continue to expand exponentially, so it can be difficult for physicians to keep up. CME is therefore essential to a physician's life-

long professional development.<sup>1</sup> To help physicians maintain a current knowledge base, the American Medical Association recommends well-planned CME programs that are offered at appropriate times, places, prices, and intervals.<sup>2</sup> Although CME is not compulsory in Turkey, the Turkish Medical Association (TMA) encourages all practicing physicians to attend CME activities, such as courses, conferences, meetings, and workshops. Those activities are generally provided by academic institutions, such as medical schools and state teaching hospitals,<sup>3</sup> and practitioners in relatively isolated rural areas may have difficulty in attending.

Because CME activities are not always readily available, physicians are encouraged to read electronic and print medical journals.<sup>3</sup> Such self-directed learning seems to be useful for physicians who cannot afford CME activities or cannot leave their practices to attend them. Learning from journals allows working physicians to obtain instruction tailored to their needs in a relatively short period.

In 1992, the TMA began publishing the monthly *Journal of Continuing Medical Education (JCME)* to supply physicians, especially those in rural and isolated areas, with the best current evidence in basic and clinical medical sciences. About 5500 primary health care settings of the Ministry of Health receive copies of the journal, and 4500 copies go to individual subscribers. There is no selection process for individual subscriptions, and every application is accepted. JCME is also published online ([www.tb.org.tr/STED/](http://www.tb.org.tr/STED/)), and there is no charge for either version. Of the readers, 75% are general medical officers, and the rest are medical specialists, medical students, nurses, and other health care professionals.<sup>4</sup>

JCME fulfills the same basic criteria as structured CME activities: assessing educational needs, establishing specific objectives, and evaluating the learning process.<sup>5</sup>

Readers' learning is evaluated with a crossword puzzle that contains questions related to the current issue. Readers who answer all the questions right send the completed puzzle to the CME Accreditation Council, an organ of the TMA and the only authority in Turkey that approves CME activities. The council can award 2 CME points for each puzzle. Every theoretical or practical CME session is awarded 1 CME point.<sup>3</sup>

JCME has developed methods of assessing its readers' CME needs and using that information when selecting articles to publish and information to include in the crossword puzzle.

The work reported here, which included a 1-year audit of JCME submissions, was intended to address the following questions: How does JCME determine its readers' needs? How does it then apply that information? Are articles submitted for publication consistent with those needs? Do published articles address those needs adequately?

## Methods

No other Turkish journal is dedicated exclusively to CME, so only JCME was considered in this investigation.

### Assessing Readers' Needs and the Journal's Capacity to Respond

I considered readers' CME needs to be those identified by a study<sup>4</sup> in which assessment forms returned from December 2000 to June 2001 were evaluated. The form asked readers to score articles in each issue for relevance, inclusion of new knowledge, applicability to practice, quality of language, and length; readers were also asked to suggest other topics of interest. The forms were inserted into JCME, and each issue asked readers to return them. In this period, 899 (of 56,000) forms were returned. While serving as a member of the JCME editorial board, I gained first-hand knowledge of the JCME editorial process, including methods

HAKAN YAMAN is an assistant professor in the Department of Sports Medicine, Süleyman Demirel University Medical School, Isparta, Turkey. He has served on the editorial board of the *Journal of Continuing Medical Education*, Turkish Medical Association, Ankara, Turkey. An earlier version of this paper was presented at the 6th World Congress on the Internet, 29 November-2 December 2002, Udine, Italy.

of determining and responding to readers' needs.

### Audit of Journal Submissions

This study included a 1-year audit of the journal. The sampling frame consisted of all articles submitted to *JCME* in 1999. Letters to the editor, news reports, and other items that did not reflect the journal's topical priorities were excluded. As a nonblinded reviewer, I manually searched each article submitted for peer review to the journal. I then classified all submissions that met inclusion criteria by topic and by region and institution of primary author. I noted which articles were later accepted for publication.

With respect to topic, articles about specific diseases and procedures were classified by medical specialty. The specialty categories were adapted from those used by the Turkish Coordination Council of Societies of Medical Specialties. Articles not particular to a specific disease or procedure were grouped into categories: one for personal health behaviors and risk factors and one for other general topics, such as health policy, administration, and medical law. Institutions included universities and hospitals, both public and private; and region was recorded as the province of the institution.

### Results

#### Readers' Needs

Özen et al<sup>4</sup> reported in a study concerning the needs of *JCME* readership that 700 readers evaluated only the articles of each issue and an additional 199 readers suggested further topics that should be covered in future issues. Of the readers who gave suggestions, 150 (75.4%) were primary-care physicians, 11 (5.5%) were specialists in medicine, six (3.0%) were medical students, and the rest were working in other health professions (nurses, health technicians, and so on). Of those readers, 56 (28.1%) had been working in the same profession for more than 10 years, 64 (32.2%) for 5 to 10 years, 37 (18.6%) for 1 to 5 years, and 23 (11.6%) for less than a year; 19 (9.5%) did not answer this question.

Of the 199 who made suggestions, 36 (18.1%) suggested that the journal publish articles on topics in emergency medicine, 16 (8.0%) in medical law and psychiatry, 14 (7.0%) in cardiology, 13 (6.5%) in pharmacology (new drugs, treatment strategies, and so on), 11 (5.5%) in chronic diseases, and 10 (5.0%) in forensic medicine, infectious diseases, gynecology and obstetrics, or neurology. The remaining readers suggested vaccination, dermatology, pediatrics, radiology, genetics, sports medicine, or other fields.

#### Editorial Process:

##### Addressing Readers' Needs

In addition to readers' filling out the assessment forms, a consulting board of readers gives feedback concerning the content of each issue. The consulting board consists of physicians working in primary care who have worked with *JCME* or expressed their interest in consulting for the journal. They have close contact with the readership and give continuous feedback concerning the content and readers' needs. There is no schedule for feedback; sometimes the editorial board seeks the consultants' opinions. In my experience, the members of the consulting board have suggested topics in medical law, forensic medicine, and emergency medicine.

All submitted articles are sent to at least two peer reviewers, who consider scientific content. The editor-in-chief decides whether to publish them. The editorial board helps the editor-in-chief determine which articles will be published. Because the editorial board is concerned with the scientific content of the journal, it also invites review papers from distinguished authors and encourages potential authors to submit interesting, high-quality scientific articles. Editorial board members are responsible for special pages, such as the "Literature and Book Review", "From My Diary", "How Would You Do It?", "Test Yourself", "Future Meetings", and "Crossword Puzzle" pages.

#### The Audit

Of the 104 articles submitted to *JCME* in 1999, 77 addressed particular specialties:

pediatrics (31 articles), infectious diseases (12), internal medicine (12), psychiatry (six), obstetrics and gynecology (five), dermatology (five), and neurology, radiology, anesthesiology, surgery, oncology, and orthopedics (one each). Of the 77, 56 (73%) were accepted for publication.

Nine articles were about disease risk factors and health behaviors—generally smoking cessation, weight control, and injury prevention. The remaining 18 articles addressed generic topics unrelated to specialty, such as health policy, epidemiology, administration, and medical law. Five of the nine articles about risk factors and behaviors and six of the 18 general-topic articles (including half the articles on law) were accepted for publication.

Primary authors' institutions were distributed as follows: universities, 64 (62%); state teaching hospitals, 16 (15%); state hospitals, one (1%); primary health care settings, seven (7%); and private hospitals, societies, and nonmedical schools, 16 (15%).

Most of the submissions (78) came from metropolitan areas of Turkey: Ankara (59), Izmir (nine), and Istanbul (10). Another 17 originated in rural western areas of Turkey, and nine in rural eastern areas of Turkey.

### Discussion

*JCME* readers suggested the publication of articles on topics in emergency medicine, medical law, psychiatry, cardiology, pharmacology (new drugs, treatment strategies, and so on), chronic diseases, forensic medicine, infectious diseases, gynecology and obstetrics, and neurology. *JCME* values the needs of its readers and tries to meet them by inviting and encouraging writers and by selecting scientifically suitable articles to meet their needs. Some of the readers' needs were met by *JCME*.

Several observations can be made regarding the 1-year audit of *JCME*. First, topics of submitted articles were unevenly distributed. Articles addressing the readers' needs were much less common. One reason might be the dominance of authors in universities, who work in specialized fields of medicine. Because such fields as health promotion,

*Continuing Medical Education continued*

preventive medicine, medical law, forensic medicine, and emergency medicine have few specialists, they might be underrepresented in the submitted articles.

The audit also revealed an inequality of acceptance rates among topics. The frequency with which a topic is featured in journals is influenced by the volume and quality of submissions, reader interest, and editorial bias.<sup>6,7</sup> In my experience, editorial bias might have played a role in the high acceptance rate of articles on clinically relevant topics (such as pediatrics), but readers' needs did not have any effect on the peer-review process and acceptance rate. Most submissions were in pediatrics, infectious diseases, and internal medicine, possibly in part because Turkey is a developing country with a young population, and doctors in primary care are involved mostly with pediatric and infectious problems in their daily practice.

The audit also showed that a large proportion of submitted articles originated in universities and academic teaching hospitals, where medical research usually is generated.<sup>8</sup> Authors in universities and academic teaching hospitals may publish more frequently because of the greater incentive to publish and better access to medical literature. Similarly, the high proportion of submitted articles originating in metropolitan areas may be related to the concentration of large universities there. In addition, most medical authorities work in those institutions, and some invited review articles in *JCME* came from those academics.

Two CME needs that have been identified are for more information about emergency medicine and psychiatry. The need for the former has been partially met through articles on pediatrics, internal

medicine, and obstetrics and gynecology that included information about emergency medicine. In the case of psychiatry, all the submitted articles were deemed sufficient by the peer reviewers and were accepted by the editor-in-chief. The needs assessment has also revealed a demand for articles addressing topics in medical law, but half the submitted articles in this field were rejected because they did not meet scientific criteria.

The editorial board of *JCME* encourages primary-care physicians to submit articles describing their experiences and problems in their daily practice. However, the data suggest that physicians in universities and academic teaching hospitals are more active in submitting articles to *JCME*. The editorial board believes that only authors who are in primary care can provide and share experience in primary care and that readers might be eager to read articles from physicians who share and understand their problems. A further task of the editorial board should be to reduce the regional differences in article submissions. That might be done by encouraging physicians in less developed rural areas in eastern Turkey to submit articles. Physicians in less developed areas need to be motivated to read scientific papers and to participate in scientific activities. If they are encouraged to write their "memoirs", their experience in health service, they might become more actively involved.

The value to doctors of attending CME activities and receiving CME credits is universally accepted because physicians must maintain current knowledge and clinical skills if they are to give their patients the best possible care.<sup>9</sup> Participating in CME activities is often difficult for physicians, and many turn to self-directed learning.

*JCME* offers valuable self-directed learning resources, in part because it has developed methods of assessing readers' needs and considers those needs during the editorial process. However, the sources of submitted and published articles must be further diversified if readers' needs are to be fully met. 

## References

1. Bennett NL, Davis DA, Easterling WE, Friedmann P, Green JS, Koeppen BM, Mazmanian PE, Waxman HS. Continuing medical education: a new vision of the professional development of physicians. *Acad Med* 2000;75:1167-72.
2. Osteen AM. 25 years in continuing medical education: the silver anniversary of the AMA PRA. *JAMA* 1993;270:1092.
3. Yaman H. Continuing medical education in Turkey: recent developments. *BMC Med Educ* 2002 Jun 19;2(1):6.
4. Özen M, Odabasi O, Yalcin SS, Canbulat Y. The properties and expectations of the *JCME* readership [in Turkish]. Proceedings of the 6th Congress of Medical Practitioners. 17-21 October 2001, Antalya, Turkey. Ankara: Turkish Medical Association; 2001.
5. Coldeway NA. Self-directed learning. In: Rosof AB, Felch WC, eds. *Continuing medical education: a primer*. New York: Praeger; 1986. p 149-58.
6. Woolf SH, Johnson RE. A one-year audit of topics and domains in the *Journal of the American Medical Association* and the *New England Journal of Medicine*. *Am J Prev Med* 2000;19:79-86.
7. Furberg CD. Challenges to the funding of prevention research. *Prev Med* 1994;23:599-601.
8. Kolbitsch Ch, Balogh D, Hauffe H, Löckinger A, Benzer A. National output in medical research. *Anaesthesiol Intensivmed Notfallmed Schmerzther* 1999;34:214-7.
9. Taner D. Continuing medical education in Turkey. *Postgrad Med J* 1993;69(suppl 2):S103-5.