

## Impact of Various Continuing Medical Education Activities on Clinical Practice – A Survey of Malaysian Doctors on its Perceived Importance

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### Abstract

**Introduction:** Medical talks, newsletter circulars, scientific meetings and conferences, and interaction with members of the pharmaceutical industry, have become convenient means of carrying out continuing medical education (CME) for many busy doctors. **Materials and Methods:** To study the perceived importance of these various CME activities, a self-completed posted questionnaire survey was conducted among registered practitioners of a densely populated urban state in Malaysia. **Results:** Of the 172 respondents [male, 77%; hospital-based, 37%; general practitioner (GP), 55%; private practice, 70%; respondent rate of 19.5%], most preferred local conferences and endorsements by local experts to their foreign counterparts. Meetings or conferences sponsored by the pharmaceutical industry were ranked similarly with those without such links, while the reputation of the pharmaceutical firms was of foremost importance. Among GPs (n = 95) and non-GPs (n = 77), medical society newsletters were rated significantly higher by GPs while overseas conferences were rated higher by non-GPs. **Conclusion:** Our findings provide an important first look at this under-explored area among Malaysian doctors and described a high degree of acceptance for the involvement of the pharmaceutical industry in CME activities.

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**Key words:** Clinical practice, Continuing medical education, Doctors, Malaysia, Pharmaceutical industry

### Introduction

Continuing medical education (CME) plays an indispensable role in the clinical practice of any doctor. The practice of evidence-based medicine today,<sup>1</sup> or any meaningful learning per se, requires at least appropriate access to relevant updated medical information. However, the acquisition of such relevant medical knowledge can prove difficult and time-consuming, especially in the face of the rapid and vast advancements in medicine these days. Consequently, for most doctors with busy practices, reliance on medical circulars, scientific talks and conferences, and increasingly, contacts with pharmaceutical firms and their personnel, to gather necessary information becomes a convenient means of carrying out CME. These practices, unsurprisingly, are not confined to Malaysian doctors alone.<sup>2,3</sup>

While numerous studies have addressed the concept of evidence-based medicine and its implementation,<sup>4-6</sup> few

have studied doctors' own perception on the extent of the impact of the various forms of medical information acquisition or CME activities on their clinical practices. This is important because they all seek to provide evidence-based medicine. To understand this better, we conducted a self-completed posted questionnaire survey among the Malaysian doctors practising in a densely populated urban state of Malaysia (Penang), addressing the perceived importance of a broad range of CME activities that had influenced their clinical practice. Specifically, we sought to study whether there were any important differences between general practitioners (GPs) and non-GPs on these issues.

### Material and Methods

#### *The Survey Method*

A self-completed two-page questionnaire form was first validated by 5 clinicians in active medical service to ensure clarity and the appropriateness of the questions after its

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content was first approved by the Committee of The Penang Medical Practitioners' Society (PMPS). Copies were then sent by post to all doctors registered with PMPS and Malaysian Medical Association (Penang branch). These doctors constituted over 70% of all doctors in Penang. A total of 880 copies were distributed, anticipating a one-fourth response rate (about 220 returned questionnaires) for meaningful analysis. All questionnaires were anonymously self-completed and were distributed once with no formal follow-up reminders of any form. Completed questionnaires were posted back in provided stamped envelopes. The questionnaire survey study was conducted over a three-month period from March to May 2005.

### The Questionnaire

The two-page questionnaire comprised questions relating to (a) information on the doctor and his practice; (2) the forms of medical writings and their endorsements, and (3) the association between pharmaceutical industry and the medical meetings/conferences. The respondents were asked to provide answers according to the order of perceived importance, listed as a five-point scale in Likert format (1 = not important; 2 = less important; 3 = moderately important; 4 = important, and 5 = very important).

To allow for meaningful comparison, the mean scores (between 1 and 5) for each question were calculated to indicate the mean ratings of perceived importance. Statistical differences between the GPs and non-GPs were analysed for trends using Chi-square test. Computations were made using statistical package SPSS version 11.5 for Windows and GraphPad Prism version 3 for Windows 95 and NT. The significance was defined at the 1% level for all tests in order to avoid occurrence of significance by chance alone.

### Results

Of the 172 returned questionnaires, all were appropriately completed (effective respondent rate of 19.5%). The majority of the respondents were males (77%) and between the age of 41 and 60 years (66%). Over half (55%) were GPs while the rest (non-GPs) consisted of surgeons (14%), physicians (12%), hospital medical officers (2%) and unspecified (15%). Over one-third (37%) worked in hospitals, one-third in clinics (30%) and the final third was unspecified. The majority worked in private practice (70%), with only 7% from the government sector, while 22% gave no indications.

With regard to medical writings and their endorsements, journal papers ranked the highest in importance (mean ratings, 3.98) followed by medical society newsletter articles (3.39). Interestingly, endorsement by local doctors and local medical societies ranked higher in importance than

those by foreign doctors or societies (2.47 and 2.84 vs. 1.95 and 2.12 respectively) (Fig. 1). Local conferences had the highest ranking (3.80), while the rest (pharmaceutical talks, overseas conferences, conferences organised by pharmaceutical firms and internet-based medical education) ranked lower and more closely to one another (3.20, 3.05, 3.18 and 3.19 respectively) (Fig. 2). The reputation of the pharmaceutical firm was of foremost importance (3.15). Sales representatives and advertisement or announcements ranked lower and closer to each other (2.45 and 2.22 respectively) (Fig. 3).

When separating the respondents into the GP and non-GP groups, the characteristics between them that were clearly different related to age and nature of clinical practice. The majority of the GPs (44.7%) were between 51 and 60 years of age while the non-GPs (42.9%) were between 41 and 50 years of age; almost all GPs worked in clinics (96.6%) while the majority of non-GPs worked in hospitals (86%); and all GPs worked in the private sector while only 22% of non-GPs worked for the government. GPs ranked medical society newsletter articles higher in importance than non-GPs, while non-GPs ranked overseas conferences more highly ( $P < 0.001$ ) (Fig. 4). There were no differences between the 2 groups on other outcomes studied here.

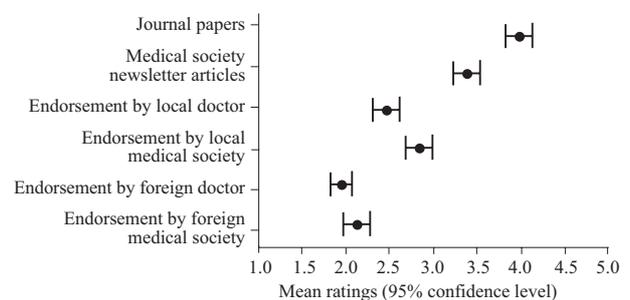


Fig. 1. Mean ratings by doctors on the impact of writings and endorsements by healthcare professionals on clinical practice. Ratings of 1 = not important; 2 = less important; 3 = moderately important; 4 = important, and 5 = very important.

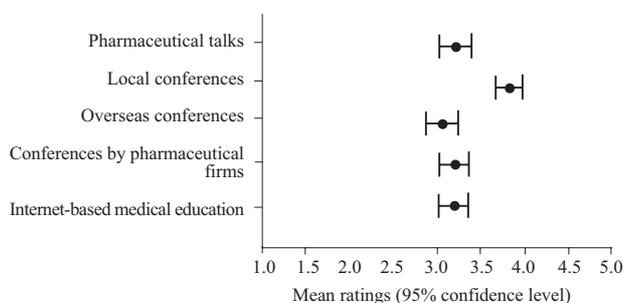


Fig. 2. Mean ratings by doctors on the impact of various forms of medical education on clinical practice. Ratings of 1 = not important; 2 = less important; 3 = moderately important; 4 = important, and 5 = very important.

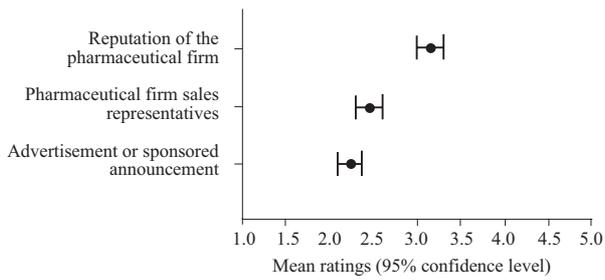


Fig. 3. Mean ratings by doctors on the impact of having connections with pharmaceutical firms and their personnel on their clinical practice. Ratings of 1 = not important; 2 = less important; 3 = moderately important; 4 = important, and 5 = very important.

**Discussion**

We have shown that our doctors generally prefer local conferences and endorsements by local doctors and local professional societies to overseas conferences and foreign endorsements. Importantly, our doctors do not seem to make much distinction between meetings or talks sponsored by pharmaceutical firms and those which are not, as both were ranked similarly. However, the reputation of the pharmaceutical firms was considered of foremost importance. When separating GPs from non-GPs, we noted a significant difference in terms of preference for medical society newsletter articles and overseas conference.

The preference for local conferences and local endorsements, perhaps, should not be surprising, since it is being increasingly recognised that socio-geographical factors are highly relevant in the practice of medicine, and that scientific data gathered from one region are not universally applicable. Such response seems to indicate some degree of maturity and caution among our doctors in appraising medical evidence, and an appreciation that the art of medicine is best practised according to the ways of the local setting, a stark difference to the olden days of medicine where there was a tendency to consider all “western” data and their conclusions as absolute.

While the concern about the reputability of a pharmaceutical firm is appropriate, the similar rankings of all talks and conferences, whether organised by pharmaceutical firms or not, may be cause for worry. Although intuitively known, there are now ample studies showing that scientific meetings sponsored by pharmaceutical industry are frequently biased towards the companies concerned.<sup>7-9</sup> Having said this, it is common knowledge today that most, if not all, major scientific talks or meetings will always have some prominent industry link, chiefly in the form of sponsorship. The comparable importance placed here by the respondents may stem from such an understanding and consequently, it is now impossible to determine the credibility of the

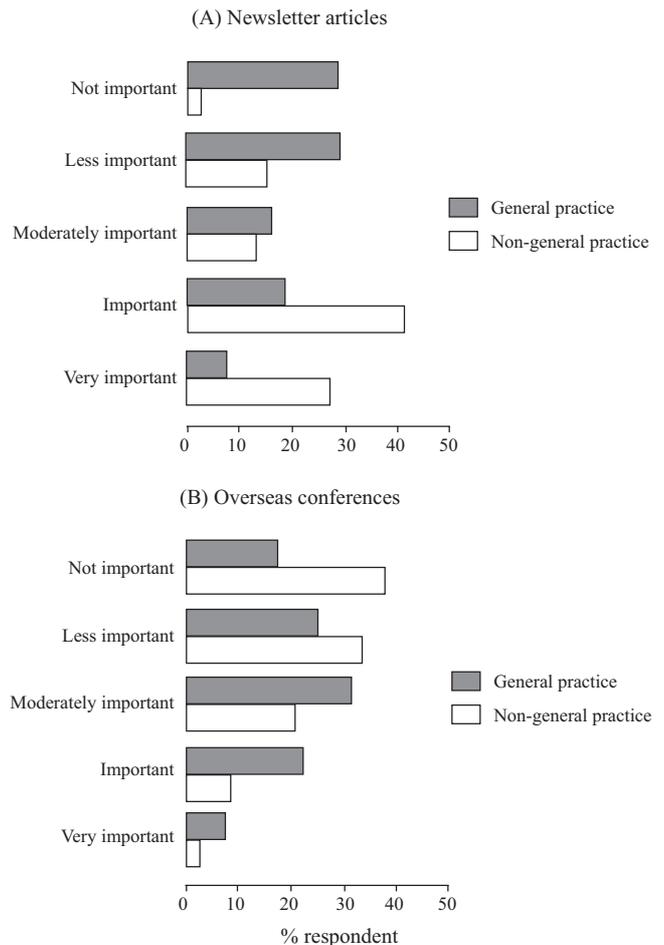


Fig. 4. Comparison of ratings scored by general practitioners (GP) and non-GPs on (A) influence of medical society newsletter articles, and (B) educational impact of overseas conferences, on clinical practice. GP rated significantly higher than non-GP in influence of articles but significantly lower on the educational impact of overseas conferences ( $P < 0.001$  for all, Chi-square for trend).

scientific content of a talk or conference on the basis of whether they have an industry link. Discerning what is medically important is therefore still very much an exercise of the listener’s own judgment, and therefore, it is conceivable that our surveyed doctors do not perceive any differences in importance whether the meeting is sponsored or not.

As mentioned earlier, the reputation of pharmaceutical firms is of foremost importance to the doctors and this is understandable from the perspective of established research and development. However, it is still possible that companies with well established brands may have an unfair advantage over smaller unknown companies, and this may not encourage the sound practice of evidence-based medicine. Although our respondents did not highly rate the importance of sales personnel in conveying medical information, it is

well known that such interaction can potentially influence clinical practice<sup>10</sup> and that more stringent regulation is necessary to minimise any conflict of interest potentially created by an unhealthy relationship between the doctor and the industry.

The preference for medical society newsletter articles for GPs and overseas conferences for non-GPs probably reflect the different natures of practice. Non-GPs may find overseas conferences more instructive in their own field of specialisation than local meetings, while GPs are likely to favour the adequacy of medical information of a more general nature conveyed by newsletter articles.

Our study has the inherent problems of a self-answered posted questionnaire survey. Firstly, perceived importance and actual practice may be different, and our study does not address this. Secondly, our results may be providing an incomplete picture of reality since the number of respondents was lower than anticipated and findings biased from those who were willing to respond. Nevertheless, the survey provides an important first look at this severely under-explored area of perceived importance of CME activities for Malaysian doctors. Our findings reiterate that clinical practice is not merely an issue of practising evidence-based medicine, but is influenced by other factors, such as the perceptions at various forms of information dissemination and the acceptance of pharmaceutical industry involvement.

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