Industry-Funded Continuing Medical Education: The Potential for Bias

Continuing medical education (CME) is expected to be intellectually rigorous, evidence-based, and free from bias. CME financially supported by industry, however, has the potential to unconsciously bias educators and the leadership of professional medical associations—biases that might unduly influence an attendee’s choice of drugs and devices, and thereby ultimately affect patient care [1–4]. At present, there are no studies that have examined whether the industry funding of CME affects patient outcomes positively or negatively [5].

Industry marketing strategies rely heavily on physician education to boost drug sales [3,5]. Physicians attending CME conferences supported by industry are more likely to use a sponsoring company’s product [6]. CME conferences provide excellent venues for direct and indirect marketing. Most of the direct marketing occurs in exhibit halls. Physicians might feel that they are resistant to such obvious promotion, but exhibit hall marketing is very useful and profitable for the marketing companies.

Indirect marketing is subtle and among other things, occurs through the effects industry relationships can have on individual educators, professional medical associations, and other CME providers. This is especially troubling as the impact of speakers and medical associations is multiplied many fold as their messages reach many attendees. Gifts of any kind, in this case any form of remuneration from a company, can trigger an unconscious physiological, psychological, and social response to reciprocate to the “gift giver.”

Speakers with financial relationships with industry might be unaware of the unconscious bias in their presentations. Examples include mentioning the sponsor’s drug or device by trade name and competitor’s products generally; discussing off-label uses; minimizing disadvantages, side effects or complications; emphasizing positive papers while minimizing negative ones; omitting noncommercial forms of treatment; and over-reliance on personal experience. In addition, educators are dependent on research publications, which are themselves frequently funded by and often biased toward the funder [7].

To best detect and thereby prevent bias, speakers must have disclosed their conflicts of interest prior to review, and review must be done carefully and critically by experts in the field [8,9]. Although specially trained reviewers observed bias in some CME presentations, the evidence that industry funding of CME creates bias is predominantly expert opinion and consensus. The Institute of Medicine (IOM), U.S. Senate Finance Committee, The Macy Foundation, and most thought leaders agree that industry funding of CME creates an opportunity for bias [2–4]. The IOM concluded that “industry influence on choice of topics and content is not rare” [4]. Even the ACCME believes the potential for financial gain by educators “creates an incentive to influence the content of the CME—an incentive to insert commercial bias” [10].

Industry money is important for the financial health of many professional medical associations. Most of these organizations conduct an annual meeting, an important source of education for members and a major source of revenue for the professional medical association. Medical associations are led by physicians who have a fiduciary responsibility to make decisions that best enable the association to fulfill its mission while remaining financially solvent. Dependence on industry funding creates the potential for these physicians to make CME decisions that favor those companies that make financial contributions to the organization. There is what might be called “group bias,” which is the role the leaders have that arises from their collective fiduciary responsibility to the professional medical association. Any group bias could influence choices of meeting program chairs and planning committees who in turn might be influenced in their choices of symposia topics, selection of speakers, and selection of which original research papers are selected for presentation. Then of course, each leader is subject to his or her individual biases as well.

Physician learners now accept that industry may bias CME. Physicians generally acknowledge that industry funding of CME might introduce bias and that greater amounts of support creates greater risk [6]. However, listeners are not able to tell if bias is or is not present [3,8,9].

A minority of authors discuss the potential benefits of industry funding of CME [2,3,5,9]. The most common arguments, most of which have been rebutted, include high costs of providing CME, patient benefit, attracting the most expert speakers, ACCME guidelines are sufficient, importance of making physicians aware of new drugs and devices, disclosure is sufficient, and patients do not care [2,11].

Pharmaceutical companies and device makers have the right to market to physicians, but marketing should be clearly identifiable as such, and not occur covertly in the guise of CME.

References
The Potential for Bias

The potential for bias in Continuing Medical Education (CME) programming is not a new concept, as this issue has been debated numerous times and the overriding concern of such has been evolving over the past many years. The basic concept of pharmaceutical and device manufacturers providing financial support to any professional organization may give pause to those who are most affected by that financial support, the providers, who are put at risk by undue suggestive or promotional content of information. Providers have the right to make their own decisions about the information they receive, whether at live events, through various media outlets or through printed material.

Those who find the use of “industry” support for CME a negative or less than positive state of affairs must remember that each clinician, each prescriber, has the ability to judge the information on the basis of scientific rigor and make decisions for his/her individual situation based on that premise [1]. The financial support of CME is, at the least, a means of support for the professional organizations who must maintain their levels of commitment to their memberships. In some cases, a significant part of the overall organization expense can be borne through the funding they receive from the various pharmaceutical and device manufacturers. If one were to simply look at all the factors involved in the change of current practice, one would find that even the use of industry support for activities such as promotional exhibiting or detailing could also lead to significant bias if scientific rigor is not exercised and clinical trial data are not reviewed with thoughtful consideration. Exhibiting and promotional activities, if thwarted or discouraged, would once again create a significant financial deficit for each organization.

If industry funding were immediately eliminated, there could be significant changes within the structure and governance of the various professional organizations. Each member would see his or her registration for the annual conferences increase to a level never before realized. In addition, the membership fees for each category, which are in part supplemented by industry funding of activities or promotional support, would likewise increase to a level previously unseen. There has been conversation around this issue in the past, and it is thought that if all aspects/factors are equal, there would be a twofold to threefold increase in the cost of basic services afforded to the general membership of each organization. Given this reality, there would potentially be decrease in the numbers of activities funded, support for board of directors’ goal setting and strategic planning, and staff elimination, to say the least.

Each professional health care association must determine the level of comfort that suits its particular needs. Some professional associations may find it troubling to have any involvement from external sources, where others may have more tolerance for the allowance of involvement of external commercial organizations, while ideally monitoring and reviewing that involvement in keeping with the best interest of the association.

We, professional associations and Industry, may never come to a complete understanding of the relevance of the information we should provide. We can, however, come to an agreeable point of consensus in which clinicians feel more validated and able to make their own determinations. We are all making strides to accomplish this and have already made significant changes in the way we approach CME as well as our other industry sponsored or supported activities.[2]

The Accreditation Council on Continuing Medical Education (ACCME) [3], the Pharmaceutical Research and Manufacturers of America [4,5], and the Office of the Inspector General [6] have all been instrumental in the changes that have occurred since the early 2000s. Additional safeguards and regulations have been adopted to make the most concerning elements less likely to occur and more likely to benefit all learners. The ACCME has provided leadership and guidance to both industry and professional associations as the