HEALTH CARE REFORM

Clinician Attitudes About Commercial Support of Continuing Medical Education

Results of a Detailed Survey

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Background: Pharmaceutical and medical device company funding supports up to 60% of accredited continuing medical education (CME) costs in the United States. Some have proposed measures to limit the size, scope, and potential influence of commercial support for CME activities. We sought to determine whether participants at CME activities perceive that commercial support introduces bias, whether this is affected by the amount or type of support, and whether they would be willing to accept higher fees or fewer amenities to decrease the need for such funding.

Methods: We delivered a structured questionnaire to 1347 participants at a series of 5 live CME activities about the impact of commercial support on bias and their willingness to pay additional amounts to eliminate the need for commercial support.

Results: Of the 770 respondents (a 57% response rate), most (88%) believed that commercial support introduces bias, with greater amounts of support introducing greater risk of bias. Only 15%, however, supported elimination of commercial support from CME activities, and less than half (42%) were willing to pay increased registration fees to decrease or eliminate commercial support. Participants who perceived bias from commercial support more frequently agreed to increase registration fees to decrease such support (2- to 3-fold odds ratio). Participants greatly underestimated the costs of ancillary activities, such as food, as well as the degree of support actually provided by commercial funding.

Conclusion: Although the medical professionals responding to this survey were concerned about bias introduced from commercial funding of CME, many were not willing to pay higher fees to offset or eliminate such funding sources.

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PHARMACEUTICAL AND MEDICAL device industry funding supports up to 60% of accredited continuing medical education (CME) costs nationwide.[1] There is increasing pressure to limit the size, scope, and potential influence of this support.[2-5] A 2008 report from the Josiah Macy Jr Foundation on continuing education in the health professions recommended that all commercial support of CME activities be eliminated within the next 5 years.[3] The implications of such an approach were discussed in recent reports by the Institute of Medicine (IOM) on conflict of interest in medical research, education, and practice. This report recommended that "a new system of funding accredited continuing medical education should be developed that is free of commercial influence, enhances public trust in the integrity of the system, and provides high-quality education."[4(p2)] The committee recognized "that such a system may involve higher costs for physicians and require cost-cutting steps by education providers."[4(p2)] The perceptions of health care practitioners on the importance of these changes, practitioners' preference for change, and their understanding of the implications remain unclear.

See Invited Commentary at end of article

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In this study, we sought to determine whether participants at live CME activities understand some of the costs involved, whether they would be willing to pay higher registration fees or accept fewer amenities to avoid or decrease the need for commercial funding, and how that willingness relates to their perception of bias related to commercial support.

METHODS

We conducted surveys at a series of live CME courses delivered by the International AIDS So-

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ciety–USA (IAS-USA) from January through June 2009. The IAS-USA is a not-for-profit medical organization that delivers CME programs for human immunodeficiency virus (HIV) specialists. The CME activities were 1-day educational courses designed for physicians and other clinicians (such as nurses, nurse practitioners, and physician assistants) who are actively involved in the medical care of people with HIV/AIDS. The organization requires that commercially supported programs receive unrestricted educational grants from several companies with competing products in the field. The activities were delivered in New York, New York; Atlanta, Georgia; Chicago, Illinois; San Francisco, California; and Washington, DC; from February through May 2009. Participants were recruited to this study through morning podium announcements. After reading a disclosure, they completed the 22-item paper survey, which was returned to on-site activity organizers later in the morning. This series of CME activities was chosen because of its wide national distribution and the availability of 1 of us (D.M.J.) to administer the survey at all sites. The study was approved by the Committee on Human Research at University of California San Francisco.

SURVEY

The survey instrument was developed using the existing literature[4] and content analysis by an expert review panel and was revised by iterative assessment, which included feedback from a pilot survey of 84 physician respondents to assess item content and clarity. The survey items targeted 4 main areas related to our research questions: (1) beliefs about commercial funding and potential for bias (10 items); (2) willingness to offset the cost of commercial support (10 items); (3) knowledge about some of the costs associated with providing a CME course (9 items); (4) demographic information, including years in practice and types of interaction with industry in the prior 3 years (eFigure, http://www.archinternmed.com). The survey items targeting the beliefs about commercial support and potential bias in CME were rated on a 4-point scale (eg, "no potential for bias" to "large potential for bias"). The survey items eliciting willingness to offset the costs of commercial support were rated on a 5-point Likert scale (ie, strongly disagree to strongly agree). To elicit the level of knowledge about ancillary costs associated with providing CME courses, participants were asked to estimate the cost of lunch per person and the cost of coffee (including service charge and tax) at their venue by selecting an amount from multiple choice options. Food and beverage costs were chosen because they can easily be determined for each location, represent a substantial proportion of the expense of the CME conferences (expenses per site in this series ranged from 12% to 33%), are easy to modify or eliminate, and are easily quantifiable. Respondent demographics were compared with available characteristics of physicians in the American Medical Association (AMA) physician master file, which includes education, training, and professional certification information on virtually all medical and osteopathic physicians in the United States, Puerto Rico, Virgin Islands, and certain Pacific Islands.[6]

DATA ANALYSIS

Data were analyzed using descriptive statistics and binary logistic regression analyses. To examine the factors associated with support for increasing registration fees and whether the commercial support should be eliminated, binary logistic regression analyses were performed. Our 2 main outcome variables were dichotomized as follows: (1) agreed or strongly agreed that raising the registration fees is an effective way to decrease commercial support vs not, and (2) agreed or strongly agreed that commercial support for live CME should be eliminated vs not. We included 3 main predictors: (1) professional degree, (2) level of perceived bias from commercial support of the CME activity, and (3) level of perceived bias from commercial support of the activity faculty. Multivariate models also included indicators for sites to account for clustering of responses within the 5 sites.

RESULTS

DESCRIPTION OF SURVEY RESPONSES

We offered the survey to a total of 1347 participants across the 5 CME activity sites, and we received 770 completed surveys, representing a 57% response rate. Response rates from the 5 sites ranged from 49% in New York to 66% in San Francisco. A total of 378 (55%) were physicians; 242 (35%) were registered nurses, nurse practitioners, or physician assistants; and the remainder were those with a PhD or other academic degree. For the analysis, the respondents are dichotomized into physicians (those with MD or DO degrees) vs others.

Of 322 who responded to the question on sex, 153 (37%) were men. Of 728 who responded, 404 (56%) had been in practice for 10 to 30 years and 96 (13%) had been in practice for more than 30 years. Of 389 who responded to the question regarding external funding, 10 (3%) had received commercial funding for research, 46 (12%) had received commercial funding for any educational event or presentation, 36 (9%) had served as industry consultants, and 297 (76%) had attended commercially sponsored dinner lectures.

When respondent characteristics were compared with the entire US physician database, the distribution of specialties and practice setting roughly parallels that of the US physician database, although there was a substantially higher percentage of infectious diseases specialists among respondents (eTable).

PERCEIVED BIAS FROM COMMERCIAL FUNDING

Table 1 provides selected results of the survey. The perception of bias reported by physicians and others was comparable, with physicians reporting a slightly higher rate of bias on all the survey questions. Respondents reported that the greater the percentage of commercial support for an event, the greater was their perception of potential bias. For example, of 365 physician respondents, only 27 (7%) thought there was substantial (moderate or large) potential bias in activities without commercial funding, whereas 156 of 341 (46%), 273 of 343 (80%), and 300 of 351 (86)% reported substantial potential bias when a single commercial supporter provided 20%, 60%, or 100% of the activity total costs, respectively. Respondents also perceived greater potential bias from single-company support than from multicompany support (Table 1). For example, 242 of 347 of physician respondents (70%) perceived substantial potential bias when 2 or more commercial supporters completely funded the activity, whereas 300 of 351 (86%) reported bias when a single commercial supporter did so. Respondents also perceived significant potential bias from commercial sup-

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Table 1. Perception of Bias[a]

Item From Study Questionnaire	Respondent Degree	No. (%) No or Minimal Potential for Bias	No. (%) Moderate or Large Potential for Bias
1. Activity support is entirely from attendee registration fees (ie, no company funding)	Physician	338 (93)	27 (7)
	Other	260 (89)	33 (11)
2. Activity is supported by a grant from a single company			
A. 100% supported	Physician	51 (15)	300 (86)
	Other	64 (23)	212 (77)
B. 60% supported	Physician	70 (20)	273 (80)
	Other	74 (28)	188 (72)
C. 20% supported	Physician	185 (54)	156 (46)
	Other	160 (63)	95 (37)
3. Activity supported by a grant from 2 or more companies			
A. 100% supported	Physician	105 (30)	242 (70)
	Other	102 (38)	169 (62)
B. 60% supported	Physician	145 (43)	193 (57)
	Other	136 (51)	130 (49)
C. 20% supported	Physician	227 (67)	111 (33)
	Other	194 (75)	64 (25)
4. The activity uses faculty who are paid members of company speakers bureaus	Physician	96 (27)	265 (73)
	Other	87 (31)	197 (69)
5. The activity uses faculty whose research is supported by grants from pharmaceutical/medical device companies	Physician	115 (32)	247 (68)
	Other	115 (40)	172 (60)
6. The activity uses faculty who receive no funding from pharmaceutical/medical device companies	Physician	343 (95)	18 (5)
	Other	263 (92)	22 (8)

[a] "Company" is defined as pharmaceutical or medical device manufacturer.

port of individual faculty who deliver CME presentations. In fact, most physicians (265 of 361 [73%]) perceived moderate to large bias from faculty members on commercial speakers bureaus and from faculty receiving research support from industry (247 of 362 [68%]) compared with faculty who receive no funding from pharmaceutical/medical device companies (18 of 361 [5%]).

WILLINGNESS TO INCREASE FEES OR DECREASE AMENITIES TO ELIMINATE COMMERCIAL SUPPORT

Although respondents frequently perceived bias from commercial support, they were split (169 of 369 physicians [46%], 125 of 307 others [41%]) on whether increasing registration costs would be an effective way to decrease that support (**Table 2**). Registration cost was reported as an important factor for physicians (286 of 372 [77%]) in selection of CME activities, and 208 of 370 (56%) agreed or strongly agreed that commercial support is essential for accredited CME and should not be eliminated. Of the strategies listed to decrease costs, physicians most strongly supported use of online instead of printed syllabi (203 of 366 [56%]) followed by a less desirable venue (184 of 365 [50%]) and elimination of free food or snacks (180 of 364 [50%]). The least desirable strategies for decreasing costs were to provide fewer topics and speakers (41 of 363 [11%]) or to credit fewer CME hours (54 of 364 [15%]).

KNOWLEDGE OF THE COST OF CME

In the survey, the respondents were asked to estimate the cost of lunch per person and a cup of coffee (including taxes and service charges) with numerous choice options ranging from less than $15 to more than $75 for lunch and ranging from less than $2 to more than $10 for a cup of coffee. At these mid-priced, chain hotel venues, the actual cost of lunch ranged from $49 in Atlanta to $117 in New York. For coffee, the cost ranged from $4.90 in Washington, DC, to $8.47 in New York City (**Table 3**). Almost 85% (653 of 770 respondents) underestimated the cost of lunch, and 88% (678 of 770) underestimated the cost of coffee at their respective site. In response to the question, "Please estimate what percentage of the total income for this course was funded by attendee registration fees vs commercial support" at least 577 of 770 (75%) overestimated the amount of funding provided by attendee registration fees. This was despite the fact that in a subsequent question, we provided the subsidized vs actual cost per participant.

FACTORS ASSOCIATED WITH WILLINGNESS TO INCREASE CME FEES AND ELIMINATE COMMERCIAL FUNDING

In general, participants who perceived substantial bias from commercial support were more willing to increase fees to reduce the need for such support and were more willing to eliminate commercial support altogether (**Table 4**). Respondents who perceived substantial potential bias from 100%-supported, single-company activities showed 2.4-times greater odds to endorse raising registration fees to decrease commercial support and 4.6-times greater odds to support the complete elimination of commercial funding. Those who perceived substantial potential bias from use of speakers bureau fac-

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Table 2. Perception of Cost of Registration and Elimination of Commercial Support

Item From Study Questionnaire	Respondent Degree	No. (%) Strongly or Somewhat Agree	No. (%) Strongly or Somewhat Disagree or Neutral
7. The cost of registration is an important factor in my decision about which accredited CME activity to select	Physician	286 (77)	86 (23)
	Other	254 (82)	55 (18)
8. Raising registration fees is an effective way to decrease pharmaceutical/medical device company support	Physician	169 (46)	200 (54)
	Other	125 (41)	182 (59)
9. Pharmaceutical/medical device company support is essential for accredited CME and should not be eliminated	Physician	208 (56)	162 (44)
	Other	193 (63)	115 (37)
10. Pharmaceutical/medical device company support should be eliminated from accredited CME activities.	Physician	61 (17)	307 (83)
	Other	46 (15)	261 (85)
11. I would be willing to accept the following to eliminate the need for pharmaceutical/medical device company support at this activity			
A. No free food or snacks	Physician	180 (50)	184 (51)
	Other	122 (41)	176 (59)
B. Less desirable venue	Physician	184 (50)	181 (50)
	Other	128 (43)	172 (57)
C. Online syllabus instead of printed	Physician	203 (56)	163 (45)
	Other	159 (53)	140 (47)
D. Fewer topics and speakers	Physician	41 (11)	322 (89)
	Other	29 (10)	268 (90)
E. Fewer accredited CME hours	Physician	54 (15)	310 (85)
	Other	29 (10)	265 (90)

Abbreviation: CME, continuing medical education.

ulty showed 1.9-times greater odds to endorse raising registration fees and 3.3-times greater odds to support the complete elimination of commercial funding. Neither sex, the site of the activity, nor professional degree or license were independently associated with willingness to increase registration fees.

COMMENT

We have shown that although many participants perceived that commercial support poses a risk for bias in CME activities, and greater amounts pose greater risk, many did not seem willing to offset those costs by paying more for the activity or decreasing what was offered. In addition, most participants substantially underestimated the actual costs of CME activities and the amount of commercial support provided to the activity. These results highlight the complexities of eliminating or decreasing commercial support for CME at this time.

There are several approaches that are currently used to minimize the presence of bias in CME activities. The Accreditation Council for Continuing Medical Education sets standards and guidelines for monitoring of commercial influence, including tracking of declared of conflict of interest as well as for resolution of that conflict.[7] In addition, tools have been developed to help CME providers anticipate bias in activities that are at greater risk of bias.[8,9] However, inherent weaknesses with this approach include the question of whether CME providers are truly able to resolve such conflict of interest and the conscious or subconscious impact of the benefit CME providers receive from commercial support on the aggressiveness with which they try to limit its influence. In 2006, participants (physician and nonphysician health care practitioners) attended 12.8 million hours of accredited CME activities, representing a total income of $2.38 billion. Commercial support, advertising, and exhibit income represented 60% of this total revenue.[5] Some have questioned whether it is possible to prevent substantial commercial influence with such a funding structure.[10]

Although there is little direct evidence about the degree to which commercial support of CME activities introduces bias, there is substantial indirect evidence to suggest that it plays a role in shaping both topic selection and presentation of information favorable to a company's products or unfavorable to their competitors' products.[3,4,11-13] Previous literature has shown that commercially supported CME activities "tend to address a narrower range of topics, focus more on drug therapies, and give more favorable treatment to company products than do programs that are not funded by industry."[13]

Even less is known about the impact of commercial support on participants' perception of bias and what they may be willing to sacrifice in order to decrease or eliminate such funding. We have shown that a substantial percentage (512 of 627 [82%]) perceived that commercial funding can introduce potential bias and that greater funding and single-company support are more likely to introduce such bias. An Australian survey[14] found that 35% of physicians were concerned about biased information at commercially supported CME activities. However, other studies have shown that when asked to rate whether bias was present in academic medical center–sponsored CME activities that they attended, physicians reported very little perceived bias whether or not commercial support was present.[15,16] This disconnect between the anticipation of bias and the detection of bias by physicians at CME activities requires further investigation.

Additional evidence suggests that physicians may hold contradictory beliefs about the impact of their own

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Table 3. Samples of Food, Beverage, and Audiovisual Costs at CME Programs in 6 Cities[a]

Location	Unit Cost, $	Persons Served, No.	Cost per Person, $
New York, New York (F&B incl 23% SC + 8.875% tax)			
Cup of coffee	139.27/gallon	15	9.28/cup
Bagels	98.83/dozen	12	8.24 each
Lunch	82.36	1	82.36
AV: 1 each of screen, LCD projector, and D/V cabling ($1650), data monitor ($75)	1725.00		
AV technician (hourly rate)	73.50		
Los Angeles, California (F&B incl 24% SC + 9.75% tax)			
Cup of coffee	97.98/gallon	15	6.53/cup
Bagels	40.83/dozen	12	3.40 each
Lunch	61.24	1	61.24
AV: 1 each of screen, LCD projector, and D/V cabling ($1550), data monitor ($75)	1625.00		
AV technician (hourly rate)	88.00		
Atlanta, Georgia (F&B incl 22% SC + 8% tax)			
Cup of coffee	112.00/gallon	15	7.47/cup
Bagels	60.61/dozen	12	5.05 each
Lunch	49.41	1	49.41
AV: 1 each of screen, LCD projector, and D/V cabling pkg ($1450), data monitor ($70)	1520.00		
AV technician (hourly rate)	75.00		
Chicago, Illinois (F&B incl 24% SC + 11.5% tax)			
Cup of coffee	135.49/gallon	15	9.03/cup
Bagels	69.13/dozen	12	5.76 each
Lunch	62.22	1	62.22
AV: 1 each of screen ($300), LCD projector ($1200), data/video cabling pkg ($175), data monitor ($325)	2000.00		
AV technician (hourly rate)	85.00		
San Francisco, California (F&B incl 21% SC + 9.5% tax)			
Cup of coffee	120.57/gallon	15	8.04/cup
Bagels	71.55/dozen	12	5.96 each
Lunch	56.97	1	56.97
AV: 1 each of screen, LCD projector, and D/V cabling pkg ($1150), data monitor ($200)	1350.00		
AV technician (hourly rate)	75.00		
Washington, DC (F&B incl 22% SC + 10% tax)			
Cup of coffee	97.97/gallon	15	6.53/cup
Bagels	69.78/dozen	12	5.82 each
Lunch	57.71	1	57.71
AV: 1 each of screen, LCD projector, and D/V cabling pkg ($1485), data monitor ($300)	1785.00		
AV technician (hourly rate)	75.00		

Abbreviations: AV, audiovisual; CME, continuing medical education; D/V, data/video; F&B, food and beverages; incl, including; LCD, liquid crystal display; pkg, package; SC, service charge.
[a]Midpriced, chain hotel venues.

Table 4. Factors Associated With Willingness to Raise Registration Fees to Decrease or Eliminate Commercial Support

	Factors Associated With Agreement That Raising Registration Fee Is an Effective Way to Decrease Industry Support		Factors Associated With Agreement That Pharmaceutical/Medical Device Company Support Should Be Eliminated	
Characteristic	Multivariable OR (95% CI)[a]	*P* Value	Multivariable OR (95% CI)[a]	*P* Value
Professional degree				
Physician	.89 (0.61-1.30)	.54	1.04 (0.66-1.63)	.87
Others	1 [Reference]		1 [Reference]	
Perception of bias in activities that are 100% supported by 1 company				
Large or moderate bias	2.43 (1.56-3.78)	<.01	4.60 (2.16-9.83)	<.01
No or minimal bias	1 [Reference]		1 [Reference]	
Perception of bias in activities that use faculty from company speakers bureaus				
Large to moderate bias	1.93 (1.20-3.09)	.01	3.29 (1.46-7.39)	<.01
No to minimal bias	1 [Reference]		1 [Reference]	

Abbreviations: CI, confidence interval; OR, odds ratio.
[a]Multivariate models included 3 listed predictors and also site indicator variable (not shown).

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involvement with industry. A survey of Scottish physicians[17] asked whether their involvement with the pharmaceutical and medical device industry created a conflict of interest or bias in their drug selection. Of the 40% who thought that commercial involvement created a conflict of interest, most (80%) thought that it did not bias their own prescribing. A similar result was shown in a survey of US internal medicine residents,[18] in which 84% believed that the prescribing of others was influenced by interactions with pharmaceutical sale representatives, while only 39% believed such interactions affected their own behavior.

As a result of this concern, recent organizational reviews of CME and commercial funding have called for greater separation or even elimination of such interactions. These have included reports from the American Association of Medical Colleges (AAMC), the Josiah Macy Jr Foundation, the AMA, and the IOM.[2-4,11-13] In January 2008, the Josiah Macy Jr Foundation convened a panel to review this topic and issued an executive summary that concluded that "pharmaceutical and medical device companies and health care professionals have inherently conflicting interests in C([M])E,"[3(pp115-116)] and "no amount of strengthening of the 'firewall' between commercial entities and the content and processes of C([M])E can eliminate the potential for bias."[3(pp115-116)] In June 2008, a task force of the AAMC examined this issue and concluded that commercial support of CME is acceptable but should be coordinated and received through a central CME office.[11(pviii)] A report in December 2009 by the IOM called for a new system of funding CME, given that "current methods of financing cannot support a comprehensive, evidence-based learning system that promotes high-quality, high-value health care that is free from conflict of interest."[2(p55)] The AMA Council on Ethical and Judicial Affairs has repeatedly reviewed this topic, most recently in June 2010, and concluded that "whenever possible, funding or in-kind support should be provided only by sources that have no direct financial interest in a physician's clinical recommendations. Those involved in CME should have no current, recent, or potential direct financial interest in the subject matter and should not currently be or recently have been involved in a compensated relationship with a commercial entity that has a financial interest in the educational subject matter."[12] As a result of the substantial controversy generated by the conclusions, the AMA House of Delegates has referred 3 previous similar reports back to committee.

There is scant literature examining clinicians' perception of the acceptability of cost cutting measures and even less about their understanding of the cost of delivering a CME activity. The little available evidence suggests that clinicians are reluctant to accept increased course fees to reduce commercial support. Our study confirms this, with most participants (>60%) reporting that commercial funding is essential for support of CME courses. Mueller et al[19] delivered a 4-question survey to attendees at an internal medicine CME activity. They found that only 8% of physicians preferred to attend a commercially supported CME course, yet 62% believed CME courses should accept commercial support if doing so reduced the overall cost of the course. Rutledge et al[17] surveyed physicians in Scotland about their own funding sources for attending educational conferences and meetings. About half received funding from industry, and about one-third would not have attended conferences without such support.

We also show that participants at these activities have little understanding of the costs involved in a CME activity and therefore may underestimate the impact of eliminating commercial support. Fully 75% underestimated the amount of commercial funding for their course. In fact, meeting venue costs are expensive and complex. Contracts to hold space at hotels usually involve commitments to sell an agreed number of sleeping rooms, with penalties if those numbers are not met. Food and beverage is often one of the largest costs to CME activities at hotel and meeting venues. We have included a sample of the meeting costs for food, beverages, and audiovisual support from the 5 sites and a sixth site at which the survey instrument was piloted (Table 4). A $9 cup of coffee may not seem to be the most economical use of CME dollars. It is unclear if policy makers have an accurate understanding of such CME costs and how live CME activities will change if or when commercial funding is decreased or eliminated. Finally, we have shown that participants who believe that commercial funding introduces bias were substantially more likely to accept higher fees to eliminate funding.

The dilemma remains of how to provide quality CME either with alternate funding or at reduced cost. One suggestion is to reduce costs by holding meetings and events at less expensive facilities and locations, or reducing speaker honoraria.[20] Barring a substantial reduction in the cost of delivering CME, however, a rapid reduction or elimination of funding might be unacceptably disruptive, and some have postulated that such a change will result in the disappearance of live CME as we know it and the development of other forms of CME.[2,21] Despite this, some academic institutions, such as Memorial Sloan Kettering Cancer Center, New York, and the University of Michigan, Ann Arbor, have successfully implemented policies to avoid acceptance of commercial support for all CME activities, and others have avoided commercial support without specific policies (University of Missouri–Kansas City School of Medicine; Nova Southeastern University College of Osteopathic Medicine, Fort Lauderdale, Florida; and Touro University Nevada College of Osteopathic Medicine, Henderson).[5,22]

When considering adoption of such sweeping policy changes, understanding health care practitioner perceptions is a crucial component of implementation, allowing policy makers to proactively address attitudes that do not support the intended change, as has been shown with activities ranging from smoking cessation to implementation of electronic health records, to health care reform.[23-25] The IOM report estimated that physicians, on average, spent slightly more than $1400 per year for CME in 2007, and elimination of commercial funding with continued attendance at the same types of CME activities would increase these costs to about $3500 annually.[2] It is not clear to what degree such implications are understood, endorsed, or accepted by clinicians.

This study is subject to the limitations of survey data, which include incomplete survey response as well as the

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potential inaccuracy of self-reported behavior. Participants were selected from attendance at a single type of not-for-profit specialty society CME meeting. Attendees at such meetings may not be representative of clinicians in general, although the group represents a national sampling of these clinicians. These attendees may also be more likely to anticipate bias than those who attend for-profit CME activities, resulting in overestimation of bias and willingness to decrease or eliminate commercial funding.

CONCLUSIONS

The current systems and guidelines for CME have been perceived by many to be inadequate in ensuring the independence of CME from commercial interests. To address this, numerous proposals and recommendations have been put forth to reduce or eliminate marketing influence in CME, including the removal of commercial support of CME activities. This report clarifies the perceptions of clinicians from a sampling of participants at live CME activities about the potential for bias from commercial funding of CME activities and their willingness to offset this funding. Respondents expressed concern about potential bias from commercial support of CME activities and individuals. A portion expressed willingness to offset these costs with higher fees or fewer amenities, especially those who perceived this potential bias. Given the reality that CME learners underestimate the actual costs of live CME activities, the impact of decreases or changes in funding sources needs to be further clarified, and an understanding of the perceptions of these learners and efforts to better inform these clinicians of the true costs of CME needs to be taken into account in the implementation of any policy change.

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Online-Only Material: The eFigure and eTable are available at http://www.archinternmed.com.

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