Funding sources for continuing medical education: An observational study

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Aims: Medical accreditation bodies and licensing authorities are increasingly mandating continuing medical education (CME) credits for maintenance of licensure of healthcare providers. However, the costs involved in participating in these CME activities are often substantial and may be a major deterrent in obtaining these mandatory credits. It is assumed that healthcare providers often obtain sponsorship from their institutions or third party payers (i.e. pharmaceutical-industry) to attend these educational activities. Data currently does not exist exploring the funding sources for CME activities in India. In this study, we examine the relative proportion of CME activities sponsored by self, institution and pharmaceutical-industry. We also wanted to explore the characteristics of courses that have a high proportion of self-sponsorship. Materials and Methods: This is a retrospective audit of the data during the year 2009 conducted at an autonomous clinical training academy. The details of the sponsor of each CME activity were collected from an existing database. Participants were subsequently categorized as sponsored by self, sponsored by institution or sponsored by pharmaceutical-industry. Results: In the year 2009, a total of 2235 participants attended 40 different CME activities at the training academy. Of the total participants, 881 (39.4%) were sponsored by self, 898 (40.2%) were sponsored by institution and 456 (20.3%) by pharmaceutical-industry. About 47.8% participants attended courses that carried an international accreditation. For the courses that offer international accreditation, 63.3% were sponsored by self, 34.9% were sponsored by institution and 1.6% were sponsored by pharmaceutical-industry. There were 126 participants (5.6%) who returned to the academy for another CME activity during the study period. Self-sponsored (SS) candidates were more likely to sponsor themselves again for subsequent CME activity compared with the other two groups (P < 0.001). Conclusions: In our study, majority of healthcare professionals attending CME activities were either self or institution sponsored. There was a greater inclination for self-sponsoring for activities with international accreditation. SS candidates were more likely to sponsor themselves again for subsequent CME activities. Keywords: Accreditation, continuing medical education, continuing medical education credit, funding, sponsorship

Introduction

Continuing medical education (CME) for physicians is mandatory in most western countries for renewal of professional licensure and re-accreditation by medical boards.[¹-³] This practice has been recently adopted by some state Medical Councils in India.[⁶-⁹] At present, State Medical Councils mandate 30 CME credit hours per annum for license renewal.[⁶,⁸,⁹] This mandatory CME credit requirement imposes a great burden on the medical community to organize relevant CME activities.[⁹] Similarly, medical professionals are obligated to maintain a minimum number of CME credits to keep their medical license and practice active. Although CME activities do help medical practitioners to update their knowledge and skills, the cost incurred...
in attending such activities is significant and continues
to be a major barrier for healthcare professionals in
obtaining the necessary credits. Healthcare professionals
hence seek to obtain funding from their parent
institutions and pharmaceutical-industry to attend
CME activities. Ethics of obtaining funding from
pharmaceutical-industry has always been strongly
debated and recent Medical Council of India guidelines
prohibit such sponsorship.[10] Data currently does not
exist regarding the funding source for CME activities
in India. Hence, in this study we seek to explore the
relative proportion of CME activities that are sponsored
by self, institution or pharmaceutical-industry. We also
wanted to explore the nature of CME courses for which
there is a higher inclination of self-sponsorship among
healthcare professionals.

Materials and Methods

Design
This is a single-center retrospective data audit
conducted at a privately owned autonomous academy
for clinical training in Chennai, India. The study was
conducted from January to December 2009.

The training center
The study was conducted at an autonomous
simulation-based privately owned clinical training
academy. This center conducts CME programs on
various aspects of patient care, providing several
medical education modules and workshops. It is an accredited center for both American Heart
Association (AHA) basic and advanced cardiac life
support (BLS and ACLS) and pediatric advanced life
support courses. The CME courses are of variable
duration, and are usually designed as small group,
hands-on training sessions.

Data collection
Study data were extracted from a database created
from a precourse questionnaire completed by the
participants of all CME courses conducted during the
study period. All the participants were requested to
complete the questionnaire as part of the registration
process. The questionnaire was designed to collect
information on the participants’ demographics, name
of the course for which they enrolled, and the source of
funding for participating in the course [Annexure 1].
The questionnaire also collected details on whether
the attendees have previously attended a CME
activity. Participants were subsequently categorized
as sponsored by self, sponsored by institution or
sponsored by pharmaceutical-industry. The courses
were broadly categorized as “courses that carried
international accreditation” and “courses without
an international accreditation”. The courses with
international accreditation were the AHA BLS and
ACLS and Basic Assessment and Support in Intensive
Care. On completion of these courses, participants
were awarded a completion certificate attested by the
respective international bodies. Data on all participants
who returned for another CME activity within the same
study period was also collected.

Data analysis
Data were analyzed using descriptive statistics.
Kruskal–Wallis and Chi-square tests were performed
to compare the self-sponsorship rates between courses
that carried international accreditation and courses
without an international accreditation and
P < 0.05 was
selected as the level of significance. Statistical analysis
was performed using the Statistical Package for Social
Science (SPSS) version 17.0 (Chicago, IL, USA).

Results
In the year 2009, a total of 2235 participants attended
40 different CME courses at the training center [Table 1].
Of the 2235 participants, 844 (37.7%) were physicians
and 1391 (62.2%) were nonphysician health care
providers. A total of 40 courses were conducted in 131
sessions, with 64 (48.9%) not providing international
accreditation and 67 (51.1%) providing international
accreditation.

Of the total participants, 881 (39.4%) were sponsored
by self, 898 (40.2%) were sponsored by institution and
456 (20.3%) by pharmaceutical-industry [Figure 1].
Four hundred and sixty-three out of the 844
physicians (54.86%) and 418 out of 1391 (30.05%)
nonphysicians were self-sponsored (SS). Out of the
total participants, 1070 (47.8%) attended courses with
an international accreditation [Figure 2]. For such
courses, 63.3% were sponsored by self, 34.9% were
sponsored by institution and 1.6% were sponsored
by pharmaceutical-industry. For courses without
international accreditation, 17.4% were sponsored
by self, 45.1% were sponsored by institution and
37.5% were sponsored by pharmaceutical-industry.
Significantly higher percentage of participants SS for
internationally accredited courses compared to courses
without international accreditation (63.3% vs. 17.4%;
P = 0.000) [Figure 2]. There were 126 participants (5.6%)
who returned to the training center for another CME
activity during the study period. Higher proportion
of SS participants sponsored themselves again for
Table 1: CME activities and number of participants

<table>
<thead>
<tr>
<th>Course</th>
<th>Number of participants</th>
<th>Sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses with international accreditation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HSFA course</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>HS CPR and AED course</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>BASIC</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>ACLS</td>
<td>48</td>
<td>7</td>
</tr>
<tr>
<td>BLS</td>
<td>945</td>
<td>55</td>
</tr>
<tr>
<td>Courses without international accreditation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arterial blood gas analysis</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Pediatric life support</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>Mechanical ventilation workshop</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Essentials of ventilation for nurses and technicians</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Medical emergencies for dental surgeons</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Community critical care</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>Fibreoptic bronchoscopy workshop</td>
<td>14</td>
<td>2</td>
</tr>
<tr>
<td>TPN</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>EPN</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td>Central and Arterial line Training</td>
<td>22</td>
<td>6</td>
</tr>
<tr>
<td>Critical issues in critical care</td>
<td>22</td>
<td>1</td>
</tr>
<tr>
<td>Sepsis update</td>
<td>23</td>
<td>1</td>
</tr>
<tr>
<td>Handling patients with respiratory distress</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>Preventable problems in ICU</td>
<td>26</td>
<td>1</td>
</tr>
<tr>
<td>Basic respiratory care</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>Hemodynamic invasive monitoring</td>
<td>30</td>
<td>2</td>
</tr>
<tr>
<td>Pediatric emergency medicine course</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>Chest pain evaluation</td>
<td>31</td>
<td>1</td>
</tr>
<tr>
<td>Reacting to abnormal lab results</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>Emergency medications</td>
<td>33</td>
<td>1</td>
</tr>
<tr>
<td>Management of seizure disorders</td>
<td>35</td>
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</tr>
<tr>
<td>ACLS</td>
<td>36</td>
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</tr>
<tr>
<td>Oral and airway care in the ICU</td>
<td>37</td>
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</tr>
<tr>
<td>Overdose and poisoning</td>
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<td>1</td>
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<tr>
<td>Pediatric emergencies</td>
<td>38</td>
<td>1</td>
</tr>
<tr>
<td>Nutrition for hospitalised patients</td>
<td>42</td>
<td>1</td>
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<tr>
<td>Effective practices in infection control</td>
<td>44</td>
<td>3</td>
</tr>
<tr>
<td>Trauma and emergency management-basic</td>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>Trauma and emergency management-advanced</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>BLS (TACT)</td>
<td>54</td>
<td>2</td>
</tr>
<tr>
<td>ECG interpretation</td>
<td>55</td>
<td>4</td>
</tr>
<tr>
<td>Infection control in the hospital and ICU</td>
<td>73</td>
<td>2</td>
</tr>
<tr>
<td>Principles of antibiotic use in the ICU</td>
<td>75</td>
<td>4</td>
</tr>
<tr>
<td>Basic airway management</td>
<td>76</td>
<td>5</td>
</tr>
<tr>
<td>IV cannulation</td>
<td>102</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>2235</td>
<td>131</td>
</tr>
</tbody>
</table>

HSFA: Heart saver first aid; HS CPR: Heart saver cardio pulmonary resuscitation; AED: Automated external defibrillator; BASIC: Basic assessment and support in intensive care; ACLS: Advance cardiac life support; BLS: Basic life support; TPN: Total parenteral nutrition; EPN: Early parenteral nutrition; ICU: Intensive care unit; ECG: Electrocardiogram; IV: Intravenous

plausible reasons. Our data reveals that most of the SS candidates attended courses that provided an internationally accredited certification. Hence, it is likely that health care providers perceived these courses as having value for their money and were more willing to sponsor themselves. It is also possible that courses with international accreditation being more expensive are less likely to be sponsored by the institution or pharmaceutical-industry. Although, our study did not specifically evaluate reasons for self-sponsorship, we speculate that courses with international accreditation are often attended by health care providers who seek professional opportunities outside India. It is hence likely that these courses have a higher rate of self-sponsorship since institutions and pharmaceutical-industry view such courses to be in conflict with their respective institutional goals. Our study had a high proportion of nonphysician health care professionals whose sponsorship rates by the pharmaceutical-industry may differ from that of the physicians. Finally, we also reported that participants who SS were more likely to return to a CME activity and sponsor themselves again within the study period.

Our study showed that a large proportion of CME activities were institution sponsored. 48.1% of our sessions were dedicated toward teaching crucial resuscitative skills for health care providers such as BLS and ACLS. Mandatory training of all health care providers in these basic skills is deemed necessary by quality monitoring and certifying bodies such as National Accreditation Board for Hospitals and Healthcare Providers and Joint Commission International. Hence it is likely that institutions were willing to fund their health care providers to attend such courses.

Last, our rate of pharmaceutical-industry-sponsorship is lower than reported in literature. Existing data suggests that pharmaceutical and medical device company funding supports up to 60% of accredited CME costs in the United States; Tabas et al. have reported in their study that most participants (>60%) felt that commercial funding was essential for support of CME courses. In another study done by Mueller et al., 62% of the participants believed CME courses should accept commercial support if doing so reduced the overall cost of the course. In a study by Rutledge et al., physicians in Scotland were surveyed for funding sources to attend educational conferences and meetings, about half received funding from industry, and about one-third would not have attended conferences without such support. In comparison, our study reported only 20.3% of CME activities being another CME activity compared with the other two groups (94% in SS group vs. 11.3% in institution sponsored group vs. 33.3% in pharmaceutical-industry group) (P = 0.000).

Discussion

In our single-centered study, we found that, majority of participants either sponsored themselves or were sponsored by their respective institutions. Only a minority of patients were sponsored by the pharmaceutical-industry. Our study reported a high rate of self-sponsorship. This could be due to several
sponsored by pharmaceutical-industry. Since all of the CME activities at our center were skill based, and not product or device based it is likely that our pharmaceutical-industry-sponsorship rates were significantly lower than that reported in other studies. Moreover, since our training center is not accredited by any institution or university, we might have had a lower rate of pharmaceutical-industry-sponsorship. In addition, our data was compiled from questionnaires given to participants at the time of their registration for their courses. Self-reporting by the participants could have altered the sponsorship rates.

Our study is the first in India exploring the funding sources for CME activities. We had large number of participants attending a wide variety of courses. The data were compiled from a database that included all participants during an entire year. We could provide important insights by reporting a strong association between courses that provided an internationally accredited certification and self-sponsorship. Last, our study included both physician and nonphysician health care professionals. However, our study is limited in that it was conducted in a single autonomous training academy and hence our results may not accurately reflect the true CME funding patterns across the country. Our study only evaluated funding sources for short workshops providing CME credits and hence this pattern may not be representative of the funding sources for participation in regional, national or international conferences. Moreover, our study does not explore the reasons for participants to sponsor themselves. However, considering the lack of any data with regards to funding sources for CME activities, we feel our study has provided important insights into the existing practices.

Conclusion

Our study shows that majority of healthcare professionals attending CME activities are either self or institution sponsored. There is a greater tendency among health care providers to self-sponsor for CME activities with international accreditation. SS candidates have a higher inclination to sponsor themselves again for a subsequent CME activity.

References

8. Tamil Nadu docs will have to renew licences every five years. Available from: http://www.articles.timesofindia.indiatimes.com/2012-08-31/chennai/33520272_1_medical-council-k-prakasam-doctors. [Last accessed on 2013 Aug 25].
10. Tabas JA, Boscardin C, Jacobsen DM, Steinman MA, Volberding PA, Baron RB. Clinician attitudes about commercial support of continuing


Source of Support: Nil, Conflict of Interest: None declared.

Annexure 1

QUESTIONNAIRE

COURSE FOR WHICH YOU ARE REGISTERING:

NAME: □ Dr. □ Mr. □ Ms. .........................................................

DATE OF BIRTH: ......................................................... GENDER: □ MALE □ FEMALE

EDUCATIONAL QUALIFICATION: .........................................................

INSTITUTION: .........................................................

DEPARTMENT .........................................................

MAILING ADDRESS: .........................................................

.........................................................

.........................................................

.........................................................

CITY: ................................................. STATE: ................................................. PINCODE: .................................................

PHONE: OFFICE: ................. RES: ................. MOBILE: ................. EMAIL: .................................................

ARE YOU A
□ PHYSICIAN □ NON-PHYSICIAN

DESIGNATION: .........................................................

SPECIALITY: .........................................................

SPONSORSHIP DETAIL FOR THIS COURSE:
□ SELF □ YOUR INSTITUTION □ PHARMACEUTICAL COMPANY

ARE YOU AN ALUMNI? □ YES □ NO

IF YES, PROVIDE COURSE DETAIL AND DATE, PREVIOUSLY ATTENDED:

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