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ORIGINAL RESEARCH

Education

Emergency physicians perspectives of state continuing medical education requirements for medical licensure

Marianne Gausche-Hill MD[1] | Yachana Bhakta MPH[2] | Michael C. Bond MD[3] | Sandra M. Schneider MD[4] | Jeffrey Druck MD[5] | Colleen E. Livingston BS[2] | Lisa Moreno-Walton MD[6] | Jonathan S. Jones MD[7] | Melissa A. Barton MD[2]

[1]Departments of Emergency Medicine and Pediatrics, Harbor-UCLA Medical Center, Los Angeles, California, USA

[2]American Board of Emergency Medicine, East Lansing, Michigan, USA

[3]Department of Emergency Medicine, University of Maryland School of Medicine, Baltimore, Maryland, USA

[4]Department of Emergency Medicine, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania, USA

[5]Department of Emergency Medicine, University of Utah, Salt Lake City, Utah, USA

[6]Department of Emergency Medicine, Louisiana State University Health Sciences Center-New Orleans, Louisianna, USA

[7]Department of Emergency Medicine, St. Dominic Hospital, Jackson, Mississippi, USA

Correspondence
Melissa A. Barton, American Board of Emergency Medicine, East Lansing, MI, USA.
Email: mbarton@abem.org

Jonathan S. Jones is a representative of the Coalition of Board-Certified Emergency Physicians.

Abstract

Objectives: This study aims to better understand the perspectives of emergency medicine physicians' on the role that state-mandated, topic-specific continuing medical education (CME) plays in addressing knowledge gaps, its relevance to current emergency practice, its reported burden and costs of CME activities to emergency physicians, and its perceived improvement in patient care.

Methods: A cross-sectional survey was designed by the Coalition of Board-Certified Emergency Physicians (COBCEP) and distributed in February 2023 to all American Board of Emergency Medicine (ABEM)-certified physicians. Statistical tests of significance (Pearson's chi-square and Fisher's exact test) assessed the cost and time spent on CME as well as the perceived value placed on CME by ABEM-certified physicians to improve patient care. Data were summarized using descriptive statistics.

Results: There were 5562 (13.0%) responses from the 43656 physicians who received the survey—5506 responses were included for analysis. Over half of the physicians (53.0%) had more than 15 years of post-residency practice experience. Most physicians (57.3%) spent less than $5,000 per year on obtaining CME. Most physicians practicing in states with state-mandated, topic-specific CME requirements believed that participation in ABEM continuing certification could be used to reduce the need for state-mandated, topic-specific CME requirements (83.6%) and state-mandated, topic-specific requirements were believed to be unlikely to improve patient care (70.8%).

Conclusions: Although well-intended, state CME requirements may lack relevancy and can, at times, place an undue burden on emergency physicians. Tailoring CME requirements to increase relevance to their patient populations and reduce barriers to completing CME could enhance knowledge translation and improve patient outcomes.

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KEYWORDS
continuing certification, continuing medical education (CME), emergency physicians, state medical boards

1 | INTRODUCTION

1.1 | Background

The value of physician continuing medical education (CME) has been debated in the literature, but most agree that ongoing education and professional development are critical to a competent physician workforce.[1] Physicians licensed to practice medicine within a state have various requirements needed to maintain licensure over time, which often include CME activities.[2] Barriers exist for physicians to obtain CME relevant to their practice, such as cost and travel time; however, physicians also report a desire to receive CME for their ongoing professional activities and CME may improve certification exam performance.[3–6] Further, legislation may impose CME requirements for physician medical licensure to address recognized public health threats (eg, human trafficking and opioid overdose). Greater flexibility could allow physicians to tailor CME requirements to be more relevant to their patient population (eg, dedicated pediatric hospitals) and thereby improve knowledge translation for certain patient populations or local/regional practice variabilities.[7]

The American Board of Emergency Medicine (ABEM) is one of 24 specialty boards in the American Board of Medical Specialties (ABMS). ABEM's mission is to ensure the highest standards of emergency medicine through its initial and continuing certification processes. All ABEM-certified physicians must complete modules that cover the breadth of emergency medicine as well as key advances, which are the latest advances that impact emergency medicine practice.[5] Emergency physicians can receive CME credit for participation in these continuing certification activities.

1.2 | Importance

Understanding the perspective of emergency physicians on state medical board CME requirements has not been evaluated but would be valuable to explore.

1.3 | Objectives

This survey aims to describe the perspectives of emergency physicians on state-mandated, topic-specific CME requirements, specifically evaluating whether CME activities address physician knowledge gaps, demonstrate relevancy to current emergency practice, and have associated perceived burden, costs, and the potential to improve patient outcomes.

2 | METHODS

2.1 | Study design

A cross-sectional survey was designed by Coalition of Board-Certified Emergency Physicians (COBCEP) members and distributed to all physicians who held certifications with the ABEM in February 2023. COBCEP is composed of representatives from the following membership organizations: the Association of Academic Chairs of Emergency Medicine, the American Academy of Emergency Medicine, the American Academy of Emergency Medicine/the Resident Student Association, the American Board of Emergency Medicine, the American College of Emergency Physicians, the American College of Osteopathic Emergency Physicians, the American Osteopathic Board of Emergency Medicine, the Council of Residency Directors in Emergency Medicine, the Emergency Medicine Residents' Association, and the Society for Academic Emergency Medicine. The WCG Institutional Review Board deemed this study exempt.

2.2 | Survey design

The web-based, closed survey was designed over 13 months by COBCEP representatives in consultation with representatives and survey design experts from the ABMS. The survey was pilot-tested by the American College of Emergency Physicians (ACEP) EM-PRN, a cohort of 1000 emergency physicians within ACEP who agree to participate in quarterly surveys. A focus group of five practicing emergency physicians took the survey and were interviewed by a project investigator (M.G.H.), after which authors modified the survey based on pilot and focus-group feedback. The final survey was organized into three sections: (1) physician and practice setting characteristics, (2) cost and time spent on obtaining state-mandated CME, and (3) physicians' opinions on the value of state-mandated, topic-specific CME in improving their clinical practice of emergency medicine. Survey design and implementation were consistent with the Checklist for Reporting Results of Internet E-Surveys (CHERRIES) and the American Association for Public Opinion Research (AAPOR).[8,9] The decision to include neutrality as an answer choice was intentional as it may serve as a proxy for either apathy or resignation to state-mandated CME requirements for medical licensure.

All subspecialties, which ABEM-certified physicians can access, were included as options to declare subspecialty certification (eg, Clinical Informatics, Sports Medicine, and Neurocritical Care Medicine).

2.3 | Survey administration

ABEM maintains an updated and secure database of board-certified emergency physicians. The target population was all current ABEM-certified physicians. The survey was conducted between February 1, 2023 and May 31, 2023, using Survey Monkey (See Supporting Information).

2.4 | Statistical analysis

The Pearson's chi-squared test was used to test whether the cost and time spent on obtaining state-mandated CME and physicians' opinions as to the value of state-mandated, topic-specific CME differed by years of practice, practice setting, or whether the CME activities were funded by an employer versus the emergency physician.[10] The Fisher Exact test was used for categorical variables with less than five responses. Statistical significance was determined using an alpha of 0.05. Overall, the survey response data were summarized using descriptive statistics. Only the first attempt of the survey by each physician was included in the study.

All statistical analysis, tabulation of counts and frequencies, and displays of survey responses were conducted using R version 4.2.2.

The Bottom Line

Emergency medicine physicians' perspectives on state-mandated, topic-specific continuing medical education (CME) are not well understood. These perspectives could inform strategies to tailor CME requirements, reduce barriers to its completion, and enhance knowledge translation for the emergency physician to assimilate into clinical practice and improve patient outcomes. Survey results revealed that 83.6% of physicians practicing in states with state-mandated, topic-specific CME requirements believed that participation in American Board of Emergency Medicine (ABEM) continuing certification could be used to reduce the need for state-mandated requirements and 70.8% of physicians believed that requirements were unlikely to improve patient care.

3 | RESULTS

3.1 | Physician and practice characteristics

The survey response rate was 13.0% (5692/43656). The data of 186 respondents were excluded because all survey questions related to cost and time spent on CME requirements and impact of state-mandated, topic-specific CME requirements on physician practice were not answered, resulting in the data of 5506 respondents for analysis.

Preliminary analysis using Pearson's chi-square and Fisher's exact testing did not reveal any meaningful significant differences in the survey responses by the following characteristics: years of practice or practice setting—thus the survey results of this study are reported holistically and by physician funding status. Most physicians in this group held an MD (86.5%, 4762/5506), and about half (47.1%, 2593/5506) of physicians had less than 15 years of experience post-residency. In comparison, 28.2% (1551/5506) had between 15 and 24 years of experience, and 24.8% (1362/5506) had more than 25 years of post-residency experience. Almost two-thirds (63.4%, 3393/5506) of physicians who completed the study survey were not subspecialty certified (Table 1). Emergency Medical Services was the most common subspecialty among this group of physicians (25.0%, 1374/5506). Community-based, non-teaching hospitals (38.0%, 2095/5506), community-based teaching hospitals (30.0%, 1650/5506), and academic medical centers (17.5%, 963/5506) were the most common practice settings among these physicians. Most physicians practiced primarily in the South (35.4%, 1950/5506) and West (26.5%, 1458/5506) followed by the Northeast (19.1%, 1049/5506) and Midwest (18.7%, 1032/5506) regions of the United States. Over one-third (37.3%, 2056/5506) of physicians were licensed to practice in more than one state or territory.

3.2 | Cost and time spent on CME requirements

In addition to state medical licensure CME requirements, physicians reported having additional CME requirements based on practice settings. Local hospital credentialing (35.5%, 1954/5506), employer or contract group (24.4%, 1345/5506), and state health departments (15.1%, 832/5506) were the most common practice settings that required additional CME (Table 2). Out-of-pocket costs for CME exceeded $1000 per year for 65.1% (3586/5506) of physicians. Almost one-third of physicians (30.9%) reported that their department or employer did not provide sufficient time to complete CME. Additionally, only 22.4% (1235/5506) of emergency physicians received full funding for CME activities, 35.6% (1961/5506) received partial funding and 40.5% (2230/5506) received no funding.

State-mandated, topic-specific CME was required for primary practice state license renewal for 81.2% (4469/5506) of physicians.

3.3 | Impact of state CME requirements on practice

Among physicians with state-mandated, topic-specific CME requirements, 83.6% (3728/4469) believed that continuing certification should eliminate the need for state-mandated, topic-specific CME requirements (Table 3). Most physicians (70.8%, 3164/4469) believed that state-mandated, topic-specific requirements were unlikely or very unlikely to improve patient care. State-mandated, topic-specific CME was reported as rarely (54.4%, 2430/4469) or never (17.9%, 800/4469)

TABLE 1 Physician characteristics.

Variable	N = 5506[a]
Subspecialty[b]	
None	3493 (63.4%)
Addiction medicine	87 (1.6%)
Advanced emergency medicine ultrasonography	161 (2.9%)
Anesthesiology critical care medicine	30 (0.5%)
Brain injury medicine	15 (0.3%)
Clinical informatics	63 (1.1%)
Emergency medical services	1374 (25.0%)
Hospice and palliative medicine	66 (1.2%)
Internal medicine-critical care medicine	85 (1.5%)
Medical toxicology	112 (2.0%)
Neurocritical care medicine	24 (0.4%)
Pain medicine	17 (0.3%)
Pediatric emergency medicine	106 (1.9%)
Sports medicine	52 (0.9%)
Surgical critical care medicine	28 (0.5%)
Undersea and hyperbaric medicine	65 (1.2%)
Medical degree	
DO	744 (13.5%)
MD	4762 (86.5%)
Years of experience	
0–4 years	818 (14.9%)
5–9 years	870 (15.8%)
10–14 years	905 (16.4%)
15–19 years	714 (13.0%)
20–24 years	837 (15.2%)
25–29 years	549 (10.0%)
30 or more years	813 (14.8%)
Medical practice setting	
Academic medical center	963 (17.5%)
Community-based, non-teaching hospital	2095 (38.0%)
Community-based, teaching hospital	1650 (30.0%)
Freestanding emergency department	243 (4.4%)
Locum tenens	80 (1.5%)
Veterans Administration hospital	120 (2.2%)
Other	355 (6.4%)
Region of primary state of medical practice	
Northeast	1049 (19.1%)
Midwest	1032 (18.7%)
South	1950 (35.4%)
West	1458 (26.5%)
US territory	17 (0.3%)
Number of additional states or territories for medical practice	
0	3450 (62.7%)
1	1158 (21.0%)
+2	898 (16.3%)

[a] *n* (%): All survey respondents.
[b] Physicians were able to select more than one subspecialty. Columns totals do not add up to 100.0%.

TABLE 2 Cost and time spent on continuing medical education (CME) requirements.

Variable	N = 5506[a]
Additional CME required by practice setting[b]	
American College of Surgeons	669 (12.2%)
American Heart Association	949 (17.2%)
Centers for Medicare and Medicaid	318 (5.8%)
Employer or contract group	1345 (24.4%)
Independent practice group	232 (4.2%)
Local hospital credentialing	1954 (35.5%)
State health departments	832 (15.1%)
None of the above	1919 (34.9%)
Out-of-pocket cost of CME per year	
Less than $1000/year	1899 (34.5%)
$1000–$2500/year	1907 (34.6%)
$2500–$5000/year	1251 (22.7%)
$5000–$7500/year	311 (5.6%)
Over $7500/year	117 (2.1%)
Other	21 (0.4%)
Funding provided by employer/department	
Full funding	1235 (22.4%)
Partial funding	1961 (35.6%)
No funding	2230 (40.5%)
Unsure	80 (1.5%)
Sufficient time to complete CME provided by employer/department	
Yes	3316 (60.2%)
No	1701 (30.9%)
Unsure	489 (8.9%)
Primary state of practice license renewal requires state-mandated, topic-specific CME	
Yes	4469 (81.2%)
No	555 (10.1%)
Unsure	482 (8.8%)

[a] *n* (%): All survey respondents.
[b] Physicians were able to select more than one additional CME required for their practice setting. Columns totals do not add up to 100.0%.

TABLE 3 Impact of state-mandated, topic-specific continuing medical education (CME) requirements on practice.

Variable	$N = 4469$[a]
Do you think continuing certification should eliminate the need for state-mandated, topic-specific CME?	
Yes	3728 (83.6%)
No	287 (6.4%)
Maybe	442 (9.9%)
Missing responses	12
Do you believe the state-mandated, topic-specific CME requirements improve your patients' care?	
Very unlikely	1563 (35.0%)
Unlikely	1601 (35.8%)
Neither likely nor unlikely	888 (19.9%)
Likely	375 (8.4%)
Very likely	42 (0.9%)
How often do the state-mandated, topic-specific CME requirements cover or review new material that you did not know?	
Never	800 (17.9%)
Rarely	2430 (54.4%)
Sometimes	1104 (24.7%)
Often	135 (3.0%)
Do you believe there should be state-mandated, topic-specific requirements for CME?	
Strongly disagree	1734 (38.8%)
Disagree	1395 (31.2%)
Neither agree nor disagree	913 (20.4%)
Agree	374 (8.4%)
Strongly agree	53 (1.2%)
Which of the following creates barriers to your completion of state-mandated, topic-specific CME?[b]	
Cost	2021 (45.2%)
Relevance	2929 (65.5%)
Time	3224 (72.1%)
No barriers	511 (11.4%)
Does time spent on state-mandated, topic-specific CME take away from opportunities to fill other gaps in your knowledge base?	
Yes	2628 (58.8%)
No	1015 (22.7%)
Maybe	826 (18.5%)

[a] *n* (%): All survey respondents.

[b] Physicians were able to select more than one barrier. Columns totals do not add up to 100.0%.

covering new material that physicians did not already know. Most physicians (70.0%, 3129/4469) disagreed or strongly disagreed that state-mandated, topic-specific requirements for CME should exist. Time (72.1%, 3224/4469) and relevance (65.5%, 2929/4469) were the most commonly reported barriers to completing state-mandated, topic-specific CME. Lastly, over half (58.8%, 2628/4469) of physicians reported time spent on state-mandated, topic-specific CME took away opportunities to fill other gaps in their knowledge base.

3.4 | Impact of state CME requirements on practice by funding status

Among physicians with state-mandated, topic-specific CME requirements, physicians with no funding were more likely to report that continuing certification should eliminate the need for state CME (1535/1803; 85.4%; $p < 0.001$), state CME requirements were very unlikely to improve their patients' care (678/1803; 37.6%; $p < 0.001$), and CME rarely covered new material (978/1803; 54.7%; $p = 0.039$) compared to physicians with funding (Table 4). Physicians with no funding were more likely to strongly disagree (727/1803; 40.3%; $p < 0.001$) with the statement that CME should exist compared to physicians with funding. Cost (969/1803; 53.7%; $p < 0.001$), relevance (1197/1803; 66.4%; $p < 0.001$), and time (1300/1803; 72.1%; $p < 0.001$) were more likely to be barriers in completing state CME for non-funded physicians compared to physicians with funding. Additionally, physicians with no funding were more likely to report that time spent on state CME took away opportunities to fill gaps in their knowledge base (1084/1803; 60.1%; $p < 0.001$).

Physicians with no funding were more likely to report that state CME was very unlikely to improve their patients' care (678/1803; 37.6%; $p < 0.019$) and were also more likely to report time as a barrier to complete state CME (678/1803; 37.6%; $p < 0.001$) compared to physicians with partial funding (Table 5).

4 | LIMITATIONS

A potential limitation of the study is the low response rate of 13.1%. Despite this response rate, however, one can have a relative degree of confidence in the survey's results as the respondent characteristics suggest that this is a representative sample of all ABEM-certified physicians. The distribution of respondents in this study by practice setting (74.6% community, 17.5% academic, 7.9% locum tenens, and so on) is similar to a previous ABEM survey whose response rate was 96.6% (76.3% community, 19.6% academic, and 4.1% other).[11]

The number of physicians who self-reported holding a subspecialty in emergency medical services (EMS) (1374) is higher than those whom ABEM recognizes as subspecialty-certified in EMS (1048) at the time of survey distribution. It is possible that the physician may have completed the survey more than once or responded as a practicing EMS physician but one who is not EMS certified. However, ABEM limited responses based on IP address and therefore limited multiple

TABLE 4 Impact of state-mandated, topic-specific continuing medical education (CME) requirements on practice, full funding versus no funding.

Variable	Full funding, $N = 985$[a]	No funding, $N = 1803$[a]	p-value[b]
Do you think continuing certification should eliminate the need for state-mandated, topic-specific CME?			
Yes	773 (78.6%)	1535 (85.4%)	<0.001
No	82 (8.3%)	106 (5.9%)	
Maybe	129 (13.1%)	156 (8.7%)	
Missing responses	1	6	
Do you believe the state-mandated, topic-specific CME requirements improve your patients' care?			
Very unlikely	326 (33.1%)	678 (37.6%)	<0.001
Unlikely	321 (32.6%)	621 (34.4%)	
Neither likely nor unlikely	208 (21.1%)	357 (19.8%)	
Likely	114 (11.6%)	133 (7.4%)	
Very likely	16 (1.6%)	14 (0.8%)	
How often do the state-mandated, topic-specific CME requirements cover or review new material that you did not know?			
Never	163 (16.5%)	342 (19.0%)	0.039
Rarely	518 (52.6%)	987 (54.7%)	
Sometimes	263 (26.7%)	421 (23.3%)	
Often	41 (4.2%)	53 (2.9%)	
Do you believe there should be state-mandated, topic-specific requirements for CME?			
Strongly disagree	347 (35.2%)	727 (40.3%)	<0.001
Disagree	289 (29.3%)	561 (31.1%)	
Neither agree nor disagree	227 (23.0%)	368 (20.4%)	
Agree	106 (10.8%)	126 (7.0%)	
Strongly agree	16 (1.6%)	21 (1.2%)	
Which of the following creates barriers to your completion of state-mandated, topic-specific CME?[c]			
Cost	210 (21.3%)	969 (53.7%)	<0.001
Relevance	583 (59.2%)	1197 (66.4%)	<0.001
Time	627 (63.7%)	1300 (72.1%)	<0.001
No barriers	176 (17.9%)	177 (9.8%)	<0.001
Does time spent on state-mandated, topic-specific CME take away from opportunities to fill other gaps in your knowledge base?			
Yes	500 (50.8%)	1084 (60.1%)	<0.001
No	307 (31.2%)	373 (20.7%)	
Maybe	178 (18.1%)	346 (19.2%)	

[a] *n* (%) survey respondents.
[b] Pearson's chi-squared test.
[c] Physicians were able to select more than one barrier. Column totals do not add up to 100.0%.

responses from the same email address. Overall, physicians were not required to provide identifying information to encourage participation unless the respondent wished to be entered into the drawing for the gift card incentive. Therefore, we do not have information on nonrespondents to the survey.

The number of ABEM-certified osteopathic physicians who responded (744, 13.5%) to this survey is slightly higher than the proportion of all ABEM-certified physicians who are DOs (5303 of 44304 or 12.0%) (dataset: ABEM secure database; May 2023). CME requirements can vary by state depending on the degree held by the

TABLE 5 Impact of state-mandated, topic-specific continuing medical education (CME) requirements on practice, partial funding versus no funding.

Variable	Partial funding, $N = 1615$[a]	No funding, $N = 1803$[a]	p-value[b]
Do you think continuing certification should eliminate the need for state-mandated, topic-specific CME?			
Yes	1373 (85.2%)	1535 (85.4%)	0.94
No	93 (5.8%)	106 (5.9%)	
Maybe	145 (9.0%)	156 (8.7%)	
Missing responses	4	6	
Do you believe the state-mandated, topic-specific CME requirements improve your patients' care?			
Very unlikely	534 (33.1%)	678 (37.6%)	0.019
Unlikely	641 (39.7%)	621 (34.4%)	
Neither likely nor unlikely	305 (18.9%)	357 (19.8%)	
Likely	123 (7.6%)	133 (7.4%)	
Very likely	12 (0.7%)	14 (0.8%)	
How often do the state-mandated, topic-specific CME requirements cover or review new material that you did not know?			
Never	286 (17.7%)	342 (19.0%)	0.50
Rarely	890 (55.1%)	987 (54.7%)	
Sometimes	400 (24.8%)	421 (23.3%)	
Often	39 (2.4%)	53 (2.9%)	
Do you believe there should be state-mandated, topic-specific requirements for CME?			
Strongly disagree	632 (39.1%)	727 (40.3%)	0.26
Disagree	526 (32.6%)	561 (31.1%)	
Neither agree nor disagree	302 (18.7%)	368 (20.4%)	
Agree	139 (8.6%)	126 (7.0%)	
Strongly agree	16 (1.0%)	21 (1.2%)	
Which of the following creates barriers to your completion of state-mandated, topic-specific CME?[c]			
Cost	823 (51.0%)	969 (53.7%)	0.10
Relevance	1107 (68.5%)	1197 (66.4%)	0.18
Time	1247 (77.2%)	1300 (72.1%)	<0.001
No barriers	149 (9.2%)	177 (9.8%)	0.56
Does time spent on state-mandated, topic-specific CME take away from opportunities to fill other gaps in your knowledge base?			
Yes	1,013 (62.7%)	1084 (60.1%)	0.27
No	319 (19.8%)	373 (20.7%)	
Maybe	283 (17.5%)	346 (19.2%)	

[a] *n* (%) survey respondents.
[b] Pearson's chi-squared test.
[c] Physicians were able to select more than one barrier. Column totals do not add up to 100.0%.

physician (DO or MD). The extent to which this affected the findings of this study is unclear.

It is conceivable that there could be a social desirability bias, so the reported results may overestimate the value of CME to patient care. On the contrary, mandated CME for licensure or hospital credentialing purposes may be seen as unfavorable due to potential inconvenience and/or lack of physician autonomy.

5 | DISCUSSION

State medical boards have used CME to respond to concerns expressed by legislators and citizens about broader national public health concerns, including opioid use disorder, human trafficking, and child abuse.[12,13] As the stress on the nation's health care system increases, patients are faced with growing challenges accessing definitive care due to a lack of referral resources (e.g., substance use disorder treatment). Additional topic-specific CME requirements by state medical boards may help to address knowledge gaps but should not be a substitute for expanded infrastructural development to address public health concerns. Additional regulatory burden, if any, should be balanced with relevancy to practice, local or regional variation in medical practice, and the concerns of burnout and attrition of the physician workforce already operating above capacity.[14]

The knowledge, skills, and abilities needed to care for the acutely ill and injured are sufficiently described in The Model of the Clinical Practice of Emergency Medicine (EM Model)[15] and are ensured by obtaining and maintaining ABEM certification. Most recently updated in 2022, the EM Model denotes the expectations of ABEM-certified physicians to provide emergency care that includes recognition of implicit bias in medical decision-making, social determinants of health resource management, shared decision-making, patient safety and medical errors, medical ethics, care of vulnerable populations, human trafficking, substance use disorders, advanced directives, compliance and quality, and emergency preparedness.[15]

Physicians continue to report that the lack of free time[3] as well as practice relevancy are the most common barriers to completing state-mandated, topic-specific CME requirements.[3,16] The topic-specific CME requirements are applied carte blanche to all physicians within a state with rare exceptions. State laws may mandate what CME topics are required for medical licensure. For example, the Massachusetts Board of Registration in Medicine requires CME specific to child abuse, even for those Massachusetts physicians whose practice consists of adult patients only (e.g., adult hospital medicine).[12] The Medical Board of California mandates CME in geriatrics, if 25% of a physician's patients are 65 or older.[12] This type of approach aims to increase relevancy to physician practice; however, it may fall short in limiting the burden of CME-mandated activities for some specialties. The Federation of State Medical Boards recommends that the majority of topic-specific CME required for state licensure be in the physician's area of practice but state medical boards are not obligated to follow these recommendations.[2,4]

In 2018, ABMS established the Continuing Board Certification: Vision for the Future Commission ("Vision Commission"), a group of 27 independent stakeholders, including physicians, health system leadership, medical associations, and patient advocacy groups.[17] The charge to the Vision Commission was to review ABMS continuing certification across all specialties and its effectiveness for professional development and commitment to delivering safe, high-quality patient care. The Vision Commission stated that continuing certification should focus on specialty-specific, formative assessments that advance practice to improve care. This concept is a philosophical shift in continuing certification, requiring greater professional responsibility, further supporting the belief that the need for state CME requirements for medical licensure is obsolete.[18] It is likely that many state medical boards are unaware of changes to continuing certification. Results of this survey can be used as a first step to build awareness of the perspectives of emergency physicians on the value as well as burden of state CME requirements and help to inform future research on the use of CME to improve patient outcomes.

The COBCEP was formed in 2017 to advocate for ABEM-certified and American Osteopathic Board of Emergency Medicine (AOBEM)-certified physicians. COBCEP seeks collaborative partnerships with stakeholder organizations (e.g., regulatory bodies and medical staff) to reduce the burden on emergency physicians from content-specific CME requirements needed for either hospital privileges or state medical licensure (COBCEP on ABEM website). COBCEP collaborated in 2018 with the American College of Surgeons (ACS) to revise the criteria for trauma-related CME for ABEM-certified physicians working in ACS-designated trauma centers who are participating in ABEM continuing certification.[19] These ABEM-certified physicians are no longer required to obtain trauma-related CME credits to fulfill ACS trauma center verification requirements. Similarly, the American Academy of Pediatrics, American College of Emergency Physicians, and Emergency Nurses Association joint policy statement entitled "Pediatric Readiness in the Emergency Department" recommends competencies in pediatric emergency care that can be met by ABEM-certification and participation in continuing certification requirements.[20]

ABEM removed its requirement for CME attestation for continuing certification in 2019 believing that ABEM certification supersedes the need for additional third-party certifications or short courses, including CME.[21] As of May 2023, four states (Georgia, Idaho, Iowa, and West Virginia) accept ABMS certification as an alternative for partial or full compliance with state CME requirements for medical licensure.[12] Physicians may choose to obtain CME in specific areas of interest or where perceived knowledge gaps exist.[22] Legislators should consider a provision for paid time-off to complete required CME courses, especially in those states with a larger number of credits required. The current research provides additional data to inform states on state CME requirements and changes in the continuing certification process that can be considered by states to allow greater flexibility for physicians to select relevant CME topics or use board certification as an alternative to compliance with state medical board requirements.

AUTHOR CONTRIBUTIONS

Survey design: Marianne Gausche-Hill, Michael C. Bond, Sandra M. Schneider, Jeffrey Druck, Colleen E. Livingston, and Melissa A. Barton. *Survey revision*: Marianne Gausche-Hill, Sandra M. Schneider, Lisa Moreno-Walton, Jonathan S. Jones, and Melissa A. Barton. *Acquisition of the data*: Colleen E. Livingston. *Analysis and interpretation of the data*: Marianne Gausche-Hill, Yachana Bhakta, and Melissa A. Barton. *Drafting the manuscript*: Marianne Gausche-Hill, Yachana Bhakta, Michael C. Bond, Sandra M. Schneider, Jeffrey Druck, and Melissa A. Barton. *Critical revision of the manuscript*: Marianne Gausche-Hill, Yachana Bhakta, Michael C. Bond, Sandra M. Schneider, Jeffrey Druck, Lisa Moreno-

Walton, Jonathan S. Jones, and Melissa A. Barton. *Statistical expertise*: Yachana Bhakta.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

ORCID

Melissa A. Barton MD https://orcid.org/0009-0005-9181-2235

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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AUTHOR BIOGRAPHY

Marianne Gausche-Hill is a Professor Emeritus in the Departments of Emergency Medicine and Pediatrics at the David Geffen School of Medicine at UCLA and Harbor-UCLA Medical Center in Torrance, CA. She is nationally and internationally known for her work as an EMS researcher and educator, and for her leadership in the field of EMS and pediatric emergency medicine. She has won numerous national awards for her leadership in emergency medicine, pediatric emergency medicine, and EMS. She is best known for her study of pre-hospital airway management for children published in *JAMA 2000* and her work on the National Pediatric Readiness Project published in *JAMA Pediatrics* in 2015 and *JAMA Network Open* in 2021.