The Vice Chair of Education in Emergency Medicine: A Workforce Study to Establish the Role, Clarify Responsibilities, and Plan for Success

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ABSTRACT

Objectives: Despite increasing prevalence in emergency medicine (EM), the vice chair of education (VCE) role remains ambiguous with regard to associated responsibilities and expectations. This study aimed to identify training experiences of current VCEs, clarify responsibilities, review career paths, and gather data to inform a unified job description.

Methods: A 40-item, anonymous survey was electronically sent to EM VCEs. VCEs were identified through EM chairs, residency program directors, and residency coordinators through solicitation e-mails distributed through respective listservs. Quantitative data are reported as percentages with 95% confidence intervals and continuous variables as medians with interquartiles (IQRs). Open- and axial-coding methods were used to organize qualitative data into thematic categories.

Results: Forty-seven of 59 VCEs completed the survey (79.6% response rate); 74.4% were male and 89.3% were white. Average time in the role was 3.56 years (median = 3.0 years, IQR = 4.0 years), with 74.5% serving as inaugural VCE. Many respondents held at least one additional administrative title. Most had no defined job description (68.9%) and reported no defined metrics of success (88.6%). Almost 78% received a reduction in clinical duties, with an average reduction of 27.7% protected time effort (median = 27.2%, IQR = 22.5%). Responsibilities thematically link to faculty affairs and promotion of the departmental educational mission and scholarship.

Conclusion: Given the variability in expectations observed, the authors suggest the adoption of a unified VCE job description with detailed responsibilities and performance metrics to ensure success in the role. Efforts to improve the diversity of VCEs are encouraged to better match the diversity of learners.

Over the past decade, several medical specialties introduced the vice chair of education (VCE) position as a new role in response to increasing demands for expert educational leadership in academic departments. VCEs facilitate the design and implementation of educational programs and further

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integrate undergraduate medical education and graduate medical education (GME) missions.[1–3] In a survey of 59 internal medicine VCEs in the United States and Canada, Brownfield et al.[4] identified several themes for the expectations of this role, including the oversight of educational programs, sharing educational expertise, promotion of scholarship in medical education, and leading educational activities within the department.

In 2015, the Alliance of Directors and Vice Chairs of Education in Radiology (ADVICER) developed a comprehensive job description for this role, which identified means through which VCEs could promote excellence in training, leadership, and scholarship within an academic department of radiology.[3] A survey of VCEs in general surgery further defined the role and its responsibilities, highlighting the importance of providing VCEs with clear expectations and paths for career advancement.[2]

Additional core skills attributed to VCEs include, but are not limited to ensuring sound educational programming and compliance with accreditation requirements, managing educational expense budgets, creating and supporting policies and procedures, improving undergraduate and graduate medical education curricula, recruiting and mentoring junior faculty, and bridging relationships with the affiliated medical school.[4]

To date, however, there is still ambiguity with this new role in emergency medicine (EM),[4] particularly when one considers the clarity of expectations delineated for other education leadership positions (e.g., residency program director [PD], clerkship director [CD]). Moreover, many EM chairpersons have not developed formal job descriptions to help scaffold the career trajectory of candidates newly hired into this role. Given its increasing prevalence in academic emergency departments (EDs), a better understanding of the VCE role in EM is needed, including both the responsibilities it demands and the chairs' expectations for this relatively new leadership role.

The present workforce-based survey study aimed to address this gap. The authors sought both to understand the current landscape of VCEs in EM and to provide guidance for those involved in building or working within this role. In this paper, the authors present the first national workforce study of VCEs in EM with the following goals: identify demographic trends and training experiences of current VCEs in EM, clarify roles and responsibilities, review qualifications for the role and the career paths of current VCEs, and gather information to develop a unified VCE job description tailored to EM.

METHODS

Study Design

This was an observational, descriptive, cross-sectional study that employed a survey-based design using target sampling to collect data through an online link distributed to participants via e-mail. The survey instrument was a 40-question, anonymous, electronic questionnaire (see Data Supplement S1, available as supporting information in the online version of this paper, which is available at http://onlinelibrary.wiley.com/doi/10.1002/aet2.10407/full). No incentives were offered for completion of the questionnaire. Both qualitative and quantitative data were collected. The study was approved by the institutional review board of Thomas Jefferson University.

Instrument

The questionnaire was designed through consensus by the study investigators, who represent experienced educators with training in qualitative research design and educational research methods as well as leadership within academic medical centers and many as VCEs. An extensive literature review was conducted on the VCE role in academic medicine, which included studies that employed a survey design to clarify this role.[5,6] The authors, who all represent VCEs from academic EDs across the United States, held several focus groups to discuss how each of them conceptualizes the role.[5,6] The questionnaire was grouped into four sections: demographics and professional background, questions pertaining to current position held by participants and to current roles and responsibilities held by participants, and questions pertaining to future career goals and advice for maximizing success in this role.

Items underwent iterative review and were reviewed for clarity of both content and structure. Cycles of feedback from the co-authors were applied to rounds of survey edits. The survey consisted of quantitative questions that required respondents to make a discrete selection from listed choices, including the option of "other" with a text clarification box. It also included qualitative data in response to open-ended questions that had unlimited free-text entry. The questionnaire was reviewed by an expert in survey design (i.e., nonclinician, education researcher) for readability outside

of the target audience. The electronic link to the questionnaire was tested for functionality by the investigators prior to distribution to study participants.

Selection of Participants

A comprehensive list of VCEs in EM was compiled using four sources:

1. Department chairs: On behalf of the study investigators, an e-mail was sent to all 129 Department Chairs of Emergency Medicine on the Association of Academic Chairs of Emergency Medicine (AACEM) listserv, which solicited the names and e-mail addresses of their respective VCEs. Chairs provided this information through a link that was embedded in the e-mail.
2. Residency program coordinators: Investigators e-mailed all program coordinators of EM residency programs and asked them to submit the names and e-mail addresses of VCEs in their respective departments. Coordinators provided this information through a link that was embedded in the e-mail.
3. Council of Residency Directors in Emergency Medicine (CORD-EM): An e-mail was sent to EM residency PDs, asking them to provide the names and e-mail addresses of their respective VCEs. Respondents provided this information through a Qualtrics link that was embedded in the e-mail.
4. One study investigator (AMM) reviewed the websites of nonresponder academic institutions to determine whether any faculty member could be identified as the VCE. If contact information for a VCE was not available online for an institution, the study investigator called the EM administrative office to determine if there was a VCE in their respective department.

Survey Administration

The authors used Qualtrics software (Qualtrics, Provo, UT) to administer the online questionnaire. Solicitation e-mails included an introductory paragraph addressed to VCE participants and emphasized the confidentiality and voluntary nature of the study. Survey nonresponders received a total of four reminder e-mails over the course of a 5-week data collection period after the initial request to complete the survey. Duplicate completion of the survey by any one participant was prevented by disabling this feature on the Web-based survey tool. Participants were given the opportunity to go back to change answers.

Data Analysis

Survey data were exported into Microsoft Excel spreadsheets for analysis. For quantitative data, proportions were reported as percentages with 95% confidence intervals, and continuous variables as medians with interquartiles (IQRs). Since not all questions in the survey were mandatory, the number of respondents for each individual question was used as the denominator to calculate percentages. For several questions, multiple responses were possible; for these questions, percentages were not expected to add up to 100%. For qualitative data, open- and axial-coding methods were used to code individual open-ended responses, generate concepts, and organize responses into thematic categories by three study investigators trained in qualitative analysis for agreement (DP, MAG, AMM). Four additional study investigators (JB, CH, LRH, LR) reviewed the resultant themes and codes; those with discordant interpretations were discussed via phone until consensus was reached.

RESULTS

We identified a total of 59 EM VCEs in the United States as of September 1, 2019; 47 of those individuals completed our survey (79.6% response rate). The VCEs who participated are mostly male (74.4%) and white (89.3%; see Table 1).

All subjects reported a title of VCE (82.9%) or a similarly worded title (17.1%) for a similar role (e.g., Associate Chair for Education). The majority of our respondents are the inaugural VCE in their respective departments (74.5%) and the average time in that current role was 3.56 years (median = 3.0 years, IQR = 4.0 years). Few subjects were hired directly into the

Table 1
Demographics of Survey Respondents (n = 47)

Male	74.4%
Female	23.4%
Declined	2.1%
White	89.3%
Asian	4.2%
Hispanic	4.2%
Black	2.1%
Northeast/Mid-Atlantic	34.0%
Southeast/Texas	27.7%
West/Mountain West	23.4%
Midwest/Central	10.6%
No response	4.3%

VCE role from outside their institution (12.8%). Many respondents hold at least one additional administrative title, including residency PD (32%), fellowship director (23.7%), dual vice chair roles (10.2%), and appointments in the dean's office (6.8%). The most common previously held administrative titles were residency PD (42.6%) and CD (27.7%).

All respondent VCEs earned a medical degree (100%; MD, DO, or equivalent degree) and most completed a residency in EM (95.7%); 25.5% completed a fellowship program, although only 6.4% completed a fellowship in education. A small number of VCEs earned a graduate degree in education (8.5%), none at the doctoral level. Less than half of the respondents completed a formal certificate program in education (42.6%), notably the American College of Emergency Physicians Teaching Fellowship (21.3%), university-based certificate programs (10.6%), Association of American Medical Colleges (AAMC) Medical Education Research Certification (6.4%), or Harvard Macy Institute courses (6.4%). Just over half of the respondents completed a leadership development program (51.1%), including university-sponsored programs (23.4%), the Society for Academic Emergency Medicine Chair Development Program (12.8%), and AAMC-sponsored leadership programs (10.6%).

The majority of respondents practiced medicine in university-based hospitals (74.5%) or public hospitals (19.2%), all of which sponsor academic departments of EM (100%). Respondents had been at their respective institutions for an average of 12.6 years (median = 14 years, IQR = 13 years). Professoriate rank of VCEs was almost evenly split between professor (44.7%) and associate professor (48.9%).

All VCEs reported directly to the chair of their department (100%). Most VCEs had no defined job description (68.9%) and reported no defined metrics of success for the role (88.6%). The average percentage of time spent on workplace activities (e.g., effort reporting) was administrative, 32.3%; clinical, 36.0%; education, 24.5%; and research, 7.2%. VCEs generally received a reduction in their clinical duties (77.8%); the average reduction was 27.7% protected time effort (median = 27.2%, IQR = 22.5%). Some received a salary stipend (31.9%) and/or administrative support (17.0%). A majority controlled some aspect of the department budget (85.7%) and were expected to generate an annual report (57.8%).

Five-year career plans of our respondents included remaining in the VCE role (50%), obtaining a chair position (13.6%), retirement (4.6%), part-time clinical practice (2.3%), leaving academic practice for community practice (2.3%), or other career plans (13.4%; e.g., becoming a designated institutional official). None of the respondents reported a 5-year plan for a role in hospital administration or a plan to leave the medical profession entirely. Open-text survey items that underwent thematic analysis, and the key themes identified, are summarized in Tables 2–4.

DISCUSSION

We report the first national workforce study of VCEs in EM, highlighting demographics, previous training, job expectations, and allocated resources for the role. The data affirm that the VCE position is a relatively new leadership role in EM. Of the 47 VCEs who completed the survey, the majority of VCEs were inaugural (74.5%), with an average time of 3.5 years spent in the position. While most VCEs (68.9%) had no defined job description, self-identified roles and responsibilities of VCEs within their respective departments thematically linked to three large domains: faculty affairs (Table 5), promotion of the departmental educational mission (Table 2), and promotion of educational scholarship within their respective department

Table 2
Oversight of Educational Mission by Vice Chairs of Education

How do you promote the educational mission of the department?
1. Administrative tasks and oversight, including managing the budget
2. Faculty development, including faculty promotion and remediation
3. Ensuring accreditation and quality of the clerkship, residency, and fellowships
4. Mentorship
5. Promotion of education scholarship
6. Recruitment of residents and faculty
7. Strategic planning and advocacy
8. New program and infrastructure development
How do you promote education scholarship?
1. Mentorship of faculty
2. Trainee scholarship
3. Development of an incentive model for education scholarship
4. Advertise employment opportunities
5. Resource allocation
6. Promoting collaboration
7. Directing scholarship committees (e.g., writing accountability groups)

Table 3
Top Priorities and Goals of Vice Chairs of Education

Priorities for the department
1. Ensuring the accreditation, quality, reputation, and branding of the educational programs of the department
2. Faculty development
3. Identify funding, opportunities, and resources
4. Provide mentorship
5. Produce scholarship
6. Recruitment of faculty and residents
7. Coordination of administration of educational programs
8. Faculty affairs
Personal goals as VCE
1. Development of skills (e.g., leadership, administrative, time management)
2. Building and scaling educational programs
3. Mentorship and teaching
4. Career advancement
5. Produce scholarship
6. Build programs and establish professional reputation
7. Succession planning
8. Wellness
9. Provide service to the department
10. Clearly define the VCE role

VCE = vice chair of education.

(Table 2). Moreover, there appears to be alignment between VCE departmental priorities (e.g., accreditation, faculty development, mentorship, scholarship) and their goals for personal professional development (e.g., skills development, amplification of scholarship, program development, career advancement).

Similar to previous studies in other specialties, most VCEs in EM were midcareer or senior faculty members, with close to 94% holding the rank of either professor or associate professor.[4] Also consistent with previous studies was the overlap of the VCE position with other major academic positions within the department and/or larger institution. A significant number of VCEs held at least one additional administrative title, most commonly residency PDs (32%) and fellowship directors (24%). These additional titles were key educational roles that required a substantial time investment, which may potentially detracted time and diffuse attention from this new, and often poorly defined, role.

The tethering of the VCE and the PD positions, in particular, posed a potential challenge. Residency PDs have historically benefited from a clear job description.[7] The Accreditation Council for Graduate Medical Education (ACGME) has delineated strict effort expectations for PDs, spanning educational leadership, curriculum development, resident recruitment, human resource management, learner assessment and advising, mentorship, teaching, and committee involvement.[7] The ability of an individual to effectively serve as both VCE and PD is of concern when considering the added educational responsibilities identified in this study that fell outside of the residency program. While fellowship programs are significantly smaller in number when compared to categorical residency programs, a similar concern for dual roles exists. Simply, it is unlikely that, without significant support and protected time, the potential of both the VCE role and a second, time-intensive leadership role can be maximized by a single individual, given the broad scope of responsibilities described by participants in the study.[8]

Table 4
Advice From Subjects About the Role of Vice Chair of Education

Advice for chairs
1. Clarify the VCE role, responsibilities, and expectations
2. Define the goals and vision of the department
3. Define performance metrics
4. Mentor, collaborate with, and regularly meet with the VCE
5. Delegate to the VCE appropriately
6. Increase support for and engagement with educational programs
7. Fund the VCE position appropriately
Advice for prospective VCE
1. Clarify the VCE job descriptions and identify metrics of success
2. Set goals and develop a mission for the position
3. Engage, support, mentor, and collaborate with other faculty members
4. Ensure autonomy in and relevance of your role
5. Develop your leadership and communication skills
6. Delegate tasks
7. Ensure that your position is distinct from the program director role
8. Advance your career and produce scholarship

VCE = vice chair of education.

Table 5
Faculty Affairs Responsibilities of Vice Chairs of Education

1. Annual performance review of faculty members
2. Education/teaching metrics for faculty members
3. Faculty development
4. Faculty recruitment
5. Faculty remediation
6. Faculty succession planning
7. Faculty teaching evaluations
8. Mentorship of faculty members

This overlap in administrative roles is coupled with the finding that close to 70% of VCEs do not have a defined job description. Without a clear job description, VCEs may not have the scaffolding in place to succeed or the guidance to know what success looks like while serving in the role. Of those surveyed, 89% reported lack of defined metrics of success for the position. Exemplar job descriptions convey specific tasks that an individual is expected to execute, help departmental leadership identify ideal candidates for a specific position, and highlight minimum qualifications for the position. A detailed job description establishes boundaries and accountability for the educational metrics of the department, effort allocation, and reporting relationships, whether the VCE held other roles in the department or not.[3,4]

Interestingly, none of the VCEs surveyed currently held the position of CD, even though close to 28% of VCEs previously held this educational title. The Alliance for Clinical Education (ACE), in a collaborative statement on the expectations of and for CDs, has proposed that a minimum of 50% of a full-time equivalent be recognized as appropriate support for the CD position.[9] This is to provide support for CDs to teach students, develop faculty teaching skills, participate in scholarly activity, and refine enduring materials for student instruction.[9] It is also conceivable that CDs, who are extensively involved in the medical school curriculum,[10] hold career trajectories that are aligned with leadership opportunities within the medical school, as opposed to within the department. In contrast to the CD role, the PD typically is expected to address academically complex responsibilities within the residency workforce (e.g., human resource management and promotion issues), which naturally overlap with stated VCE duties.[7] This may possibly explain why a substantial number of VCEs surveyed (42.6%) reported to have immediately moved into the VCE role after having served as PD.

It is also encouraging to highlight that there is some degree of job satisfaction with the VCE position itself, as half of those surveyed would remain in the position over the next 5 years. In fact, none of those surveyed expressed a plan to leave the medical profession, suggesting that there may be a "protective" effect associated with the role. While part of this may be secondary to job crafting,[11] it is conceivable that some VCEs are genuinely satisfied by advancing the educational mission despite having a dedicated job description. Future studies should clarify this observation and specifically determine why current VCEs would not exit the medical profession.

In evaluating demographic data in this study, a sobering observation concerns the lack of diversity of current VCEs of EM in the United States. Findings are congruent with other studies that highlight gender disparities in medicine.[12–15] According to the 2013–2014 AAMC report, *The State of Women in Academic Medicine*, only 15% of department chairs and 16% of deans are women, with only a marginal increase observed over the past decade.[14] In a 2015 survey of EM physicians, of 113 chair/vice chair positions, only 15% were women, and only 18% were nonwhite.[16] The lack of women and underrepresented minorities (URM) at higher ranks is also congruent with cross-sectional data from the AAMC, despite women constituting close to 50% of all graduating medical students.[16]

A lack of diversity among VCEs in EM carries potential consequences for trainees and the department as a whole. Diversity in educational leadership impacts policies and teaching practices, shapes institutional culture, informs research activities, empowers URM faculty, and fosters the creation of mentoring and recruiting networks.[17] Leadership from varied backgrounds are best suited to integrate diverse individuals with different skill levels and cultural backgrounds to meet departmental goals.[18] As the VCE in EM expands, there must be an emphasis on addressing these disparities. VCEs who are URMs may be better suited to bringing their unique experiences and understanding of learner backgrounds to the leadership table. The stated interest of many respondents in continuing in this role for the foreseeable future may also have the effect of creating little turnover, thus making the VCE position relatively resistant to change in its features and occupants.

Another important observation in this data set is the wide range of resources allocated to VCEs in EM. Some respondents report little or no financial incentive, reduction in clinical duties, or administrative assistance. Most commonly, our VCEs receive an average reduction of 27.7% protected time effort. While it may be puzzling why a department leadership role would have such variable support within our specialty, it may be explained by the lack of clear responsibilities and identifiable performance metrics. As the role matures in academic medicine, it is likely that VCE support will become a standard operating expense for large departments.

Similar to other specialties, there is an a priori assumption that the VCE position in EM exists to promote excellence in and ensure quality with training, teaching, and educational scholarship across training programs housed in the ED.[3] In this position, VCEs in EM have the opportunity to steer the academic mission of the department, support educational programs, provide mentorship, and assist faculty with promotions.[3] It is encouraging to discover that there are almost 60 VCEs in EM across the United States who are dedicated to advancing the educational mission of the specialty. The next steps could include creating programming at educators' meetings specific to supporting and developing this role. The authors advocate for creation of VCE interest groups within national professional organizations that would support a community of practice for members in this role. This would create an opportunity to develop an online community for VCEs, dedicate a meeting space for VCEs during subsequent annual national meetings, facilitate collaboration and support for challenges in this nascent role, and share VCE resources through the organization's website infrastructure.

LIMITATIONS

This study has limitations worthy of mention. While great care was taken to identify all individuals who held the VCE role prior to survey distribution, there may be additional VCEs not identified, leading to selection bias. There may be EM educational programs (e.g., GME programs or student rotations) that take place at nonacademic medical centers, such as smaller community-based hospitals, that do not assign the same leadership roles as are found in university-based departments. These educational programs may have individuals who execute the roles and responsibilities typical of a VCE, but were not surveyed given the methods of this study. Furthermore, our survey queried only VCEs and did not directly survey departmental chairs for their expectations of their respective VCEs. Concurrently surveying departmental chairs would have provided an additional perspective to the responsibilities ascribed with the VCE role.

CONCLUSION

The vice chair of education in emergency medicine is an emerging academic leadership role that is currently not well defined. Our findings describe how vice chairs of education promote the educational mission in their respective departments; outline their top priorities for their departments and for their own personal, professional development; and offer advice for chairs and prospective vice chairs of education to ensure success. A significant number of vice chairs of education hold at least one additional administrative role in their respective departments and/or institutions, and there is a wide range of resources allocated to individuals in this role. Future considerations should include creating job descriptions for vice chairs of education, with detailed responsibilities and performance metrics as well as expectations for compensation. Substantial efforts to improve the diversity of leadership in education to better match the diversity of their learners should also be encouraged.

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Supporting Information

The following supporting information is available in the online version of this paper available at http://onlinelibrary.wiley.com/doi/10.1002/aet2.10407/full

Data Supplement S1. Supplemental material.