Creating a Cadre of Fellowship-Trained Medical Educators: A Qualitative Study of Faculty Development Program Leaders’ Perspectives and Advice

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Abstract

**Purpose**
Well-trained educators fill essential roles across the medical education continuum. Some medical schools offer programs for existing faculty to enhance teaching and scholarship. No standard postgraduate training model exists for residency graduates to attain competency as faculty members before their first academic appointment. The objective of this study is to inform the development of postgraduate medical education fellowships by exploring perceptions of educational leaders who direct well-established faculty development programs.

**Method**
The authors undertook a qualitative study, using purposeful sampling to recruit participants and a constant comparative approach to identify themes. They conducted semistructured telephone interviews with directors of faculty development fellowships using an interpretivist/constructivist paradigm (November 2013). Questions addressed curricular and fiscal structure, perceived benefits and challenges, and advice for starting a postgraduate fellowship.

**Results**
Directors reported institutional and participant benefits, notably the creation of a community of educators and pool of potential leaders. Curricular offerings focused on learning theory, teaching, assessment, leadership, and scholarship. Funding and protected time were challenges. Advice for new program directors included evaluating best practices, defining locally relevant goals; garnering sufficient, stable financial support; and rallying leaders’ endorsement.

**Conclusions**
Medical education fellowships cultivate leaders and communities of trained educators but require participants to balance faculty responsibilities with professional development. Advice of current directors can inform the development of postgraduate programs modeled after accredited clinical specialty fellowships. Programs with the support of strategic partners, financial stability, and well-defined goals may allow new faculty to begin their careers with existing competency in medical education skills.

Medical educators with broad expertise across the domains of learning theory, teaching, program design, assessment, and education scholarship are essential to medical schools and graduate medical education programs. Currently, no standard postgraduate training model (like those available for each medical specialty) exists for residency graduates to attain competency as faculty members before their first academic appointment. The need for rigorous training has grown as novel educational modalities and initiatives have expanded and evolved. For example, reliance on large-group lectures as the primary means of delivering information has waned in favor of innovative and interactive learning strategies, such as team-based learning, problem-based learning, simulation, and social-media-enabled learning.1–3 With the implementation of the Next Accreditation System4 and the introduction of core entrustable professional activities,5 those medical educators who have a strong background in theory, curriculum design, assessment, and education research methods are better prepared to lead curricular transformations.

To address the variable preparation of incoming faculty in medical education practice and scholarship, several medical schools have established their own intensive faculty development programs.6–12 These longitudinal programs serve a diverse group of existing motivated faculty from various disciplines, and they often create within a single institution a trained cadre of education leaders.

Under the supervision of experienced educators, faculty learners develop and refine their core teaching skills; learn how to work within the framework of external mandates (e.g., those of the Accreditation Council for Graduate Medical Education [ACGME]4 and the Liaison Committee on Medical Education [LCME]13); and conduct mentored scholarship. In 2006, Searle and colleagues14 published the results of a survey querying faculty development leaders about their curricula. Although programs share common elements, there is no standardized curriculum for graduates pursuing a career in medical education.15 Program length varies, and the focus of such programs ranges from teacher development to deliberate training in education scholarship. Many institutions refer to these faculty development programs as “medical education fellowships.” In 2011, Thompson and colleagues16 reported that half of all medical schools had a medical education fellowship to augment the skill level of their teaching force. Such faculty...
development initiatives may enhance promotion and tenure decisions, especially for those in clinician–educator tracks. Such “fellowships” streamline training that may have been taught through a mentor–protégé dyad in the past. In addition to the curricular objectives, those programs strive to create future leaders and build a community of educators.\(^6,15,16\)

**Applying the Medical Specialty Postgraduate Training Model to Educational Leadership Development**

In the medical specialties training model, residency graduates who wish to specialize are required to complete a dedicated fellowship to acquire the advanced skills necessary to perform job tasks prior to their faculty appointment (e.g., an internal medicine residency graduate completes a cardiology fellowship to become a cardiologist). In contrast, most academic faculty do not undergo formal training in medical education techniques prior to beginning their careers. Rather, competency is attained “on the job” or by means of participation in a faculty development program after the academic appointment. In both instances, faculty must balance the acquisition and development of skills with a full workload, which requires juggling clinical, administrative, and teaching duties.

The concept of a postgraduate medical education fellowship began within the specialty of family medicine in the 1970s and stemmed from a desire to address a perceived need for a community of educators.\(^7\) Similarly, emergency medicine (EM) education leaders convened in 2012 at the Academic Emergency Medicine Consensus Conference on Education Research, to discuss optimal training for education scholars and to foster the development of a broad community of faculty with similar interests, skills, and expertise. Lin and colleagues\(^8\) concluded that an in-depth needs assessment was necessary to inform how to best accomplish this goal. A postresidency medical education fellowship model that provides training in medical education before the first faculty appointment was proposed.\(^9\)

As in the postgraduate medical training model, we believe that formal postresidency training in medical education would benefit trainees and institutions alike. Newly hired faculty members who have successfully completed such a fellowship would arrive with a strong foundation in the techniques of teaching, assessment, and education scholarship, able to design, implement, and evaluate educational projects. Their subsequent faculty development experiences could focus on specialized or advanced training based on institutional needs\(^20\) or personal interests and goals.

Our proposed model would foster a community of highly skilled teachers and education scholars within an institution. Research indicates that early training in medical education inspires a desire for a career in academic medicine\(^21\) and precludes the development and reinforcement of poor teaching techniques.\(^22\) The impact of prefaculty fellowship training may be especially meaningful for novice learners who are typically open to new techniques or strategies.\(^23\) The Society for Academic Emergency Medicine (SAEM) developed a pathway for oversight of postgraduate fellowship programs that are not regulated by the American Board of Medical Specialties. Programs that meet rigorous preestablished criteria may receive “approval” from SAEM. One of these is the education scholarship fellowship for EM residency graduates.\(^20,24\)

A similar program exists in the specialty of pediatrics.\(^25\)

The objective of this study is to inform the development of a postgraduate medical education fellowship training program that occurs prior to the initial faculty appointment by exploring the perceptions of experienced educational leaders who direct well-established longitudinal faculty development “medical education fellowships.”

**Method**

**Study population, setting, and ethical approval**

Participants were directors of well-established longitudinal faculty development medical education programs in the United States in 2013. The Office for the Protection of Human Subjects at the David Geffen School of Medicine at University of California, Los Angeles certified this study as exempt research.

**Study protocol**

We conducted this as a prospective qualitative study, using semistructured telephone interviews, in November 2013. We identified potential participants through an Internet-based search and/or personal knowledge of program leaders. Inclusion criteria were as follows:

- longevity of program (graduates were in practice for at least five years since fellowship completion);
- presence of a scholarly curricular component; and
- longitudinal program structure (i.e., the same cohort of learners progressed through the program together over several months).

To render our findings as generalizable as possible, we used purposeful sampling. We wanted not only to ensure representation of individuals who would have extensive knowledge of key elements of the research question but also to gather, if possible, the view of those who might be outliers or have dissenting opinions. To achieve this diversity of expertise and opinion, we considered geographic diversity, institutional funding (private versus state/governmental), and length/focus of program.

We recruited potential participants via an e-mail invitation that stipulated our intentions to interview them about their faculty development medical education fellowship program. We also disclosed our intention to use their answers to help shape similar programs for residency graduates who would enroll prior to accepting their first faculty appointment. Participation was voluntary, and we did not offer participants any incentives. One member of our study team (D.P.R., graduate of a medical education fellowship program) conducted semistructured telephone interviews lasting approximately one hour. We accomplished member checking in real time: The interviewer frequently restated participants’ responses and sought to ensure that he understood their intended meaning. The interviews were recorded with the participants’ permission and transcribed verbatim by a member of the study team (J.M.). Both D.P.R and J.M. had prior acquaintance with one participant (from their home institution).
Instrument

We based the interview script on outcomes generated at the aforementioned 2012 Academic Emergency Medicine Consensus Conference on Education Research. Attendees included recognized experts in medical education both within and outside the specialty of EM from all areas of the United States and Canada. We based the scripting of the questions on recommendations of a subcommittee of scholars with expertise on training educational leaders. We designed the questions, the content of which was specialty independent, using cognitive interviewing methods. Semistructured questions sought discrete information (e.g., program length, number of fellows) but enabled the respondent to offer additional information. Other questions were open-ended, designed both to promote reflective analysis of the program’s impact on the fellows themselves and the institution, and to inspire a vision of the “ideal” fellowship. Finally, we elicited advice for those seeking to create a new program. We read the script aloud to volunteers (i.e., senior educators who lead residency, fellowship, or continuing medical education programs) to assess for response process, clarity, and comprehension. On the basis of their responses, we made minor modifications, including using terminology uniformly, transforming complex questions into shorter segments that allowed a response to each component before offering the next query, and correcting minor grammatical errors. (See Appendix 1 for the interview script.)

Data analysis

We performed a qualitative analysis using a thematic approach and an interpretivist/constructivist paradigm that sought to understand the views, perceptions, and experiences of faculty development program directors. Two investigators (W.C.C., founder of a medical education fellowship program that has graduated fellows since 1996; J.J., graduate of such a medical education fellowship) independently coded the deidentified, transcribed interview data. They examined the data line by line, identifying recurring concepts and assigning codes that were further refined using the constant comparative method. They resolved discrepancies through an in-depth discussion. Through consensus, they established the coding scheme which then was applied to all transcripts. A third independent analyst (D.P.R.) who was not involved in the development of the coding scheme then used it to code each interview transcript and achieved 86.3% agreement with the initial two analysts. The three analysts negotiated a final coding scheme through consensus prior to data analysis. We achieved saturation for thematic content after reviewing four transcripts, but we analyzed and reported the data from all interview transcripts.

Results

General outcomes

Fourteen programs met our inclusion criteria. We interviewed a purposive sample of eight program directors who headed long-standing faculty development programs (range = 6–33 years; mean = 15.38 years). The eight (see List 1) were representative of the United States geographically and of U.S. MD-granting medical schools in terms of public/private ownership.

Program length ranged from 10 months to 2 years. Four programs were 2 years in length; the remaining half were 1 year or less. The average number of total graduates per program was 150 (range 60–300). Programs admitted an average of 17 fellows each year (range 3–25). Five programs accepted only faculty; two accepted, as 10% to 15% of their cohort, clinical fellows, nurse practitioners, or unspecified PhD candidates; and the remaining program evaluated its cohort selection on a yearly basis.

Program leaders described their curriculum and fiscal structure, appraised the value of their programs, and offered guidance to educators seeking to create new medical education fellowships. While the structure and operation of the programs were unique, all directors reported positive outcomes, especially regarding the prevalence of graduates in leadership positions (e.g., site directors, department chairs, residency program leaders, and deans of education). To illustrate, two directors commented:

The school [of medicine] has established an Academy of Medical Educators and [the Academy] used departmental chair nominations [to identify] education leaders. There were 120 nominations and 98 were graduates of our program.

Many of the graduates become residency program directors. [Our] current dean of graduate medical education, student affairs dean, previous curriculum dean and chair of the Student Progress Committee [are] teaching scholar graduate[s]. There are people all over in leadership, but I think that was the original intent of the program and I think it’s been really successful getting people into leadership positions.

Curricular elements

Basic curricular offerings, taught mostly through didactic programs within individual institutions, included material on adult learning theory, teaching techniques (didactic and bedside), use of technology in medical education, applied education research methodology, and administrative leadership skill development (see Table 1). Some programs collaborated with other institutional faculty development programs and formal external programs (e.g., the Medical Education Research Certificate Program [MERC] run by the Association of American Medical Colleges [AAMC]).

Funding

Seven of the eight programs received partial funding from their institutions; however, of these seven, three institutions required an investment by the fellow or his/her academic department. All eight programs reported that at least some of the overhead costs of the faculty development medical education fellowship (e.g., physical space requirements, leaders, administrative support staff, computer support, library resources) were folded into the general expenses incurred by their deans’ offices.

It’s built into our faculty development program as part of the dean’s office. All faculty development has to have space and people to do it, food to eat, copies of things, computer support. So it has the same level of support as other courses offered by the medical school.

List 1

Programs Represented in 2013 Qualitative Study of Faculty Development Medical Education Fellowship Programs

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Another director elucidated expenses that were covered by the medical school.

[The program is funded] out of the Office of Medical Education. The amount of money it takes is not huge. We provide … food at the beginning of the year, buy all the books for them … $400–$500 per scholar … those are probably the biggest expenses. It … costs a few thousand dollars and … MERC … costs a few thousand dollars. It’s fairly modest.

Three program directors reported that grants to the medical school or specific grants for the program were available.

We were very fortunate in 2002 to get a major gift of $20 million to the school to provide endowed professorships and so the dean … decided we would use the interest from a couple of those to essentially fund the faculty development program.

However, one program leader cautioned that reliance on extramural funding might jeopardize the ability to fund the program regularly.

It was funded through grants until this year [when] HRSA [the Health Resources and Services Administration] didn’t offer the grant program. We have put a hold on the fellowship for this year.

One program relies on the faculty member’s department to offset the cost with a modest tuition payment.

There’s a small amount, $1,500, that the departments provide for each of the faculty [members who] are participating. [This] helps underwrite our department’s [Department of Medical Education’s] cost.

Another school charges for participation to cover costs related to the faculty development medical education fellowship program, including salary support for the leaders and the course coordinator.

People pay $4,000 per year. I think [they] make the request to the chairs [who] will support them or not. Some people have paid their own way if their chair has refused to pay their tuition but they really want to come.

Protected time

Directors reported that both the faculty of the medical education fellowships and the fellows themselves must balance job-related responsibilities with the time commitment needed for the fellowship. Program directors, especially nonphysicians, reported that they consider teaching in the medical education fellowship to be an inherent job duty. Two programs were each codirected by a practicing clinician, and in both cases the clinician received financial support from his or her dean’s office to compensate for protected time from clinical duties commensurate with his or her fellowship obligation; one received 15% salary support, and the other received 50%.

Protected time and financial support were less reliable for the fellows. While five programs stipulated, in a formal agreement with learners’ department chairs, that fellows were to be released from some percentage of their usual responsibilities, compliance with this policy was often suboptimal. Of the five with agreements, two required a 10% commitment, one mandated 20% and 25% protected time, and one stipulated that duties should be “reduced” while engaged in the fellowship program. Two programs had no formal agreement, and the remaining program did not specify if an agreement existed.

As mentioned, despite formal arrangements, program leaders doubted that the agreements were followed uniformly.

As part of the application process, they are required to have a letter from their department chair in which the department chair assures them that they will have 1.5 days per week in year 1 set aside.… The adherence to that is certainly not optimal and it varies by department.

Training in education research

Most programs (n = 7) offered—either as an elective or as a required component—training related to educational scholarship. One program focused primarily on teaching and did not cover research topics. Two programs (each less than one year in length) addressed research methodology and critical review of the literature as a curricular element, but did not require a project. The most common method of research training, adhered to by three programs, was to follow the AAMC’s MERC curriculum—either at the home institution by local qualified faculty or at an external meeting. One program provided a mentor to fellows to facilitate completion of scholarly projects, and two required completion of a project as a requisite for successfully finishing the fellowship.

The value of a medical education fellowship

We asked directors why they thought a faculty development program focusing on medical education was worthwhile, and they unanimously cited the creation of a community of like-minded scholars as the most important benefit of the fellowship.

The [fellows] are being connected … it’s the social and academic networking they are doing and the opportunity to try new skills and have time to reflect on their practice of teaching and research. Even the basic scientists say, “I go back and run my team meetings differently. I am clear on my expectations and I’m not trying to just catch people when they fail. I’ve rephrased it to a positive.” We have a great deal of really cherishing and respecting our [fellows].

Everybody says when they leave the program they feel reinvigorated, reenergized, and connected with people who love to teach. It is their passion, but not necessarily culturally valued. So I think that creating the community within the system is the most important [benefit] for these folks. It’s really an antidote to burnout.

Other prominent themes were potential for career advancement and promoting pervasive competency in the domains covered in the programs.

As the most important benefit of the fellowship.
The physician graduates from medical school and residency, and then, if they want to enter academic medicine, they don’t really have the survival skills. Some are trained to do research, but it’s the survival skills so they can be appropriately tenured in academic medicine.

We think about it as the first training for educators and how to think about that in a more rigorous and reflective way. The other part of our program is to develop some scholarship. That’s something faculty might not be experienced with.

When asked about program strengths, four directors noticed improved perception of medical education. All felt supported by their institutional leaders and colleagues.

I called the [university] president and asked if there was any way we could use her home for the opening reception, and she said, “Of course, this is the most important initiative we’ve got going for our faculty!”

Advanced degree requirement

An advanced degree was not a requirement for successfully completing any of these long-standing programs. Most directors cited time constraints and resource limitations as reasons for not requiring a degree.

We met with the Graduate School for Education where a master’s degree in education would come from. They have a significant number of requirements that we determined our physicians would never complete—it wasn’t offered at night or online. We tend to refer our people who want a degree to our colleagues across town. The only executive program available right now is an EdD, a two- to four-year night/weekend degree. We have had several fellows do that. They can use the Medical Education Fellowship as elective credit.

Although most program directors did not believe an advanced degree was necessary, some believed either that such a degree might offer the advantage of increased marketability or that national trends might necessitate earning an advanced degree in the future.

I think it’s really important. If you look across the country, many of the great leaders have a PhD or EdD or MEd…. I think it does become more and more common to have that and to be competitive in the positions we are talking about. It will become more and more desirable.

I think what’s happening nationally, is that with changes in the LCME … it’s going to get to the point that for educational leadership, positions they are going to want to see a Master’s in Education.

However, one director aptly pointed out,

Certainly [with] the leadership roles we are seeing our graduates get into, a degree must not have been necessary because they obviously got those roles.

Challenges of the medical education fellowship

When asked about challenges of running a successful program, seven fellowship directors cited resource issues. Two felt that greater fiscal support of the program would enhance it. Three wished for more departmental support in the form of consistent protected time, and one recalled the financial investment made by the fellows or their departments and suggested that institutional support would make it easier for these individuals and their sponsoring departments. Three directors wished for improved technological support for the course, including interactive technology for the fellows, such as access to simulation. Two directors pointed out that transferring leadership of the program was proving to be difficult because so much personal investment of time and talent were at the core of the program’s success. The two directors whose programs required a scholarly project component were frustrated that some fellows did not complete it despite the availability of appropriate mentors. They cited the lack of protected time from administrative or clinical duties as likely reasons.

People have committed to coming, but people are leaving because they get called back to cover an emergency patient or something has happened.

I think that particularly for new faculty, their academic work takes a backseat to their patient care [duties]. I think there are times that they haven’t devoted their time and attention to the fellowship due to busy clinic schedules and various issues that come up in patient care activities.

One program leader expressed frustration when trained educators leave the institution.

[The program is worthwhile] from our point of view as central administration, to build educational capacity for the school. We are not happy when we have people leave after the fellowship. We are trying to build educational leaders for our own students and residents.

Hopes and dreams for fellowship program graduates

Program directors uniformly believed that the fellowship would improve the careers of their graduates. When queried about their hopes and expectations of graduates, four major themes emerged: Graduates have better chances of (1) assuming leadership roles, (2) pursuing an academic career, (3) producing scholarship, and (4) achieving national prominence in their field(s).

The whole idea is to change the culture one person at a time or one cohort at a time. I expect to see [graduates] in leadership positions advocating for education. We encourage them to become active in national organizations … and to advance the science … of what we know in medical education…. People tell me it changed their whole life … mostly because this is a 10-month introspection…. They leave invigorated and now that there are 200-plus of them out in the departments, they tend to be able to find other like-minded people. I like to think it is an antidote to burnout and isolation…. We have created a community.

We hope they will all be in education leadership positions—residency director, medical student director, associate dean. Unanimously, they would say their careers will be better because of participation in [the] program.

I want them to lead in place…to be agents of change. I am also hopeful from this group we will get the next deans and presidents and CMOs [chief medical officers]. One of our [grads] set up an international initiative … [another] has an R-01.

A majority of the individuals do go on to be more productive with education in a scholarly way that seems to be sustained.

All eight directors cited general improvement of the educational community at the local level as one of the greatest benefits of their long-standing programs (see The value of a medical education fellowship above).

Advice to those starting a new medical education fellowship

The fellowship directors’ suggestions for those considering developing a new medical education fellowship fell overwhelmingly into three major recommendations: (1) Clearly define the goals and specific objectives of the program, (2) evaluate best practices and choose those that best fit local needs, and
(3) garner necessary fiscal support and the endorsement of institutional leaders. One director stated:

The first thing would be to look at what's been done ... [go] visit [some successful programs] and attend one of the sessions. Number two is to make sure [there is] support at home. When your boss supports you, you have already got something that's really big right there in terms of increasing your chances of success.

Another suggestion was to include technology, including educational adjuncts (e.g., simulation) and teleconferencing or asynchronous learning to minimize schedule disruption—although the major objective of forming a community of scholars might suffer with diminished face time. Some suggested that the departments pay tuition for their faculty to attend to underscore the investment in education. They noted that when the chairs had to tap into their own budgets, they had a higher level of expectation and were more willing to release the faculty for the sessions. Uniformly, directors felt that protected time was the biggest factor in ensuring the success of the learners and that attrition was a result of competing clinical or other departmental demands.

**Discussion**

Longitudinal faculty development fellowships cultivate communities of medical educators to achieve common goals and lead new initiatives that keep pace with the needs of today's learners. Most commonly, these communities arise from a multidisciplinary base within a single institution and are intended for existing faculty who yearn for theoretical knowledge and mentored experiences in teaching and educational scholarship. Many faculty members begin their academic careers without focused training in medical education and then, when they undertake such training, they must balance their time engaged in professional development with administrative and clinical responsibilities. Other training models are plausible, such as postgraduate fellowships modeled after ACGME-accredited clinical specialty fellowships.

We interviewed directors of long-standing faculty development medical education fellowships to understand their views on the structure of their fellowships and on the programs’ impacts on graduates, institutions, and the medical education community at large. Their thoughtful comments can inform the development of new professional development initiatives that aim to prepare graduates to embark on academic careers with specialized skills in medical teaching, leadership, and scholarship. Lessons learned from this group support the idea that a postresidency, prefaculty fellowship structure may have unique benefits in overcoming major challenges faced in longitudinal models.

**Benefits to institutions and faculty fellows**

Timing the fellowship prior to faculty appointment allows trainees to prioritize their professional development as education specialists, under close mentorship, in a model that minimizes administrative and service obligations. Graduates would begin their faculty careers with a standard foundation of knowledge and skills, already fluent in the language and culture of learning theory. They could immediately become productive members of the local educational community, and the faculty development initiatives they undertake later could focus on higher-level institutional needs or specific, personal goals.

Although, according to our participants, most fellows were promised protected time to focus on learning, their clinical and administrative duties impeded their progress and, sometimes, the completion of fellowship-related tasks, especially scholarly products. Completion of the medical education fellowship in a format that aligns with the medical specialties model obviates this problem. Fellows could engage in departmental or institutional activities as part of their training, and these fellows’ contributions (e.g., limited clinical service, direct teaching, program development, and committee work) could expand the clinician–educator workforce at their institutions. Including postgraduate fellows in existing faculty development programs could even be cost-effective.

Further, the postgraduate structure affords multiple layers of community. Institutional programs could be modified to address higher-level outcomes, and knowledgeable new faculty could work as a team to meet common goals and integrate quickly with more seasoned educators. Fellows may forge bonds with one another and have a widespread community within their specialties across multiple institutions nationwide.

Finally, our scientific inquiry began with a desire to implement a postresidency, prefaculty program for, specifically, EM residency graduates. The information we gathered, however, could be applied to any medical specialty or, because a diverse group of participants is advantageous, to any multidisciplinary group (e.g., by engaging postgraduate fellows from different specialties at the same institution or fellows within a specialty from multiple institutions in a given geographic location).

**Suggestions for developing a postresidency medical education fellowship**

Program directors’ advice to educators or leaders starting a fellowship program in medical education, when explicitly prompted to consider a postgraduate fellowship format, was clear and unanimous: Define goals in advance, evaluate best practices, and gather support from key strategic partners and leaders, including department chairs and deans. Local leaders’ support and financial resources (aside from programmatic costs related to materials and directorship responsibilities) must be in place prior to starting a program. Educators and faculty development leaders hoping to launch a new program would be wise to include a provision for funding the program faculty, mentors, and support staff. Additionally, programmatic evaluation should be considered during the planning phase (see also below).

**Fellowship content and evaluation**

The ideal curriculum content reported by our participants, including interactive teaching methods, adult learning principles, curriculum development, assessment, leadership, and scholarship, resonates with published core content for education scholarship fellowships. Interviewees reported that providing multiple learners with consistent knowledge and shared expertise was critical in forming a supportive community to foster the local educational mission.
Despite a call for improved analysis of fellowship program outcomes, prior studies have demonstrated few objective outcome data from metrics of program success. Our program directors relayed anecdotal information about graduates who had risen to leadership positions and scholarly achievement. Although metrics of success can be inferred from program directors’ expectations of graduates, the need for critical, quantitative, long-term evaluation of programs to inform best practices remains. Additionally, direct evaluation of programs targeted to postgraduate fellows will be needed if this model is implemented on a larger scale.

Limitations
Our findings are limited to a small sample of experienced program directors; however, the sampling was purposeful to include a variety of program formats, as well as institutional (public/private) and geographic diversity. Possibly, we did not ask all the relevant questions, but we encouraged participants to speak freely through our open-ended question format. When we planned our study, we hoped that we would gain a variety of opinions and dissenting viewpoints. Our study population provided rather uniform responses, perhaps indicating that “best practices” for program directors of faculty development fellowships had emerged. Directors of nascent and discontinued programs may have provided additional insight. Although our interviewer and transcriber knew one of the directors on a professional basis, blinded reviewers performed the coding and analysis using deidentified transcripts. We may have omitted unique points of view from programs outside of the United States, particularly in Canada, where medical education is a firmly established discipline. We embarked on this project from a particular perspective. All of us involved in this study are EM physicians; however, we applied our considerable collective medical education experience and knowledge to the project. Three of us have additional training in education and are involved in postgraduate medical education/fellowship leadership (W.C.C., S.A.S., L.M.Y.), and four of us have completed a medical education fellowship (W.C.C., S.A.S., L.M.Y.), and four of us have completed a medical education fellowship (D.P.R., S.R., T.A.G., J.J.). Our group approached this study with the intent of creating a broad model of a postgraduate fellowship in medical education to mimic existing faculty development programs that would apply to multiple specialties. Importantly, none of our respondents were emergency physicians, and none of our questions focused on any particular medical specialty.

Directions for further study
Future investigators should explore specific details of postgraduate fellowships in medical education before implementing them on a widespread scale. Other researchers have proposed conducting a formal needs assessment to identify viewpoints of many stakeholders. One question to answer, for example, is how many full-time exempt employees would be required to provide supervision and mentorship to fellows. Other areas to assess are financing and fellowship structure. Currently, no standard mechanism is available for funding non-ACGME fellowships. The basic infrastructure of existing faculty development programs could serve as a model for our proposed training format. Consistency across formal programs aimed at residency graduates, such as in the aforementioned SAEM fellowship approval program, is desirable.

Conclusions
Our study highlights core principles associated with successful faculty development medical education fellowship programs based on insight from their directors. Careful consideration of their recommendations can guide the creation of communities of trained medical educators. We hope the findings presented in this study can serve to further define and shape a postgraduate training in medical education fellowship that mimics postgraduate ACGME-accredited clinical fellowships. A formal needs assessment that queries all stakeholders may shed additional light on the best way to design such a fellowship. Our respondents have identified the keys to successful program implementation: garnering the support of key strategic partners and leaders; ensuring financial flexibility; and planning educational goals, objectives, and programmatic evaluation—based on best practices—in advance. In an appropriate educational environment, application of these principles may foster the development of a postgraduate, faculty medical education fellowship that will enable new faculty to begin their academic medicine careers with competence in the skills needed for success.

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Appendix 1

Semistructured Telephone Survey Question Guide, 2013a

1. How long has your program been in existence?
2. What is the duration of your program?
3. Do you notice any trend in enrollment among faculty in basic science, primary care, or those in surgery or other subspecialties?
4. How many candidates can participate in the program each year?
5. How many faculty have graduated from your program since it began?
6. What types of positions do your graduates currently hold? (If clarification was sought by respondent, the following choices were offered: administrative roles, department chairs, deans, residency or clerkship leadership, core academic faculty, and others you might recall.)
7. How do you address (if at all) each of the following curricular elements: adult learning theory, teaching methods, research and scholarship, administrative skills, and/or leadership development? Are there other curricular elements you offer?
8. Do you require an advanced degree, e.g., masters, PhD, EdD? If yes, what benefit do you see from this option? If not required: Would you like to offer this option? If yes, what are the main obstacles? If no, why not?
9. Do you think an advanced degree is/will be necessary? Why/why not?
10. Do the faculty enrolled in your program participate in any other organized educational activities other than a degree program? (If clarification was sought by respondent, the following choices were offered: AAMC program, university program, specialty-specific organization program such as CORD-EM Course “Navigating the Academic Waters.”)
11. How is your program funded?
12. Is there release time for the fellowship director? Supporting faculty?
13. Do faculty participants (those enrolled) receive support in the form of protected time or other compensation?
14. Do you offer the participants any additional support/opportunities?
15. Why do you think a faculty development program is worthwhile?
16. What do you view as the strengths of your program? Why do you think it is successful?
17. Do you feel supported by the person to whom you report at your institution? By your colleagues in your department? Beyond?
18. What are the major challenges you face in running your fellowship program?
19. Do you feel you currently have the “ideal” program? How would you change it to make it ideal? Is there anything holding you back from having the ideal program?
20. What is your assessment of the level of performance of the faculty currently enrolled in your program? How do you feel this compares to those faculty at a similar academic level who are not enrolled in the program?
21. What are your hopes for the graduates of your program? How do you think their careers will be affected by their participation?
22. Do you have any concerns about the future of your faculty development program?
23. What advice do you have for someone who hopes to create a new faculty development program in medical education?
24. What advice do you have for someone who hopes to create a medical education fellowship for residency graduates in a given specialty? (At this time, it was disclosed that the specialty affiliation of the interviewer was EM but that the answer would ideally focus on any specialty. If unclear, the interviewer described the possibility of mimicking the typical postresidency medical specialty fellowship model.)
25. Is there anything else you would like to share about your experience as the director of a medical education fellowship for faculty?

Abbreviations: AAMC indicates Association of American Medical Colleges; CORD, Council of Residency Directors; EM, emergency medicine.

a Respondents were free to expand on answers to each of the questions. A single interviewer asked appropriate follow-up questions for clarification or expansion in the normal flow of conversation. Respondents were program directors of faculty development medical education fellowship programs in 2013.