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Fellowship Program Directors Perspectives on Fellowship Training

abstract

BACKGROUND: Recently the American Board of Pediatrics has undertaken an effort to examine the components and structure of pediatric fellowship training. To provide the current status of training programs and the perspectives of those in positions of leadership regarding fellowship training, a study of all fellowship program directors in the United States was undertaken.

METHODS: We conducted a mail survey of all 719 pediatric fellowship program directors in the United States.

RESULTS: The response rate was 82.2%. Fellowship directors were almost evenly divided regarding whether they believe that there is a need to change the expected amount of clinical training time in their own subspecialty, with 51% stating the amount was appropriate and 48% believing it should be increased. Fewer than half (42%) of program directors believe that the amount of scholarly training time should be the same for all fellows in their subspecialty regardless of career path (ie, primarily clinical versus primarily research). The majority (58%) stated that regardless of career path, the required training for all fellows in their own subspecialty should remain 3 years. Only one-third of program directors strongly believed that quality improvement activities were an important component of fellowship training.

CONCLUSIONS: Variation exists among fellowship program directors in their perceptions of the goals and structure of fellowship training. Determining the best way to both account for and recognize the specific nuances of each subspecialty, while maintaining a common set of standards for the profession, will be an important and ongoing effort into the future. *Pediatrics* 2014;133:S64–S69

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KEY WORDS

fellowship, training, program directors, education

ABBREVIATIONS

ABP—American Board of Pediatrics
QI—quality improvement
RRC—Residency Review Committees
SOCs—Scholarship Oversight Committees

Dr Freed conceptualized and designed the study and critically reviewed and revised the manuscript; Ms Dunham designed the data collection instrument, coordinated and supervised data collection, and drafted the initial manuscript; Ms Moran conducted data collection and tracking, coded the responses, and reviewed and revised the manuscript; Ms Spera carried out the analyses and reviewed and revised the manuscript; Dr McGuinness reviewed and revised the data collection instrument and critically reviewed the manuscript; Dr Stevenson reviewed and interpreted the data and critically reviewed the manuscript; and all authors approved the final manuscript as submitted.

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There are 14 pediatric subspecialties approved by the American Board of Medical Specialties and for which the American Board of Pediatrics (ABP) administers board certification examinations.¹ For each, subspecialty training requirements are developed and promulgated by the Residency Review Committees (RRC) of the Accreditation Council for Graduate Medical Education.² In addition, the ABP requires a scholarly product to be completed during the course of fellowship training. Furthermore, each trainee must have a Scholarship Oversight Committee and each training program must create a curriculum for scholarly activities.³

All standard fellowship training programs in pediatrics are required to be 3 years in duration to qualify a trainee to be eligible for subspecialty certification. In 2004, the ABP reaffirmed a 1996 Federation of Pediatric Organization statement that “the principal goal of fellowship training should be the development of future academic pediatricians and that the graduates of pediatric fellowship training programs should be proficient in clinical care, direct and consultative, teaching; and a selected area of research...” At that time the ABP also made significant modifications to the then-requirement for “meaningful accomplishment in research” to allow for greater flexibility in fulfilling new requirements for “scholarly activity.”⁴

With regard to specific training requirements, the RRC recommends that training programs provide fellows with 12 months of time for scholarly activity and 12 months of clinical training. The structure of the remainder of the time in training is left to the discretion of individual program directors.³

Each individual subspecialty fellowship training program has a designated program director responsible for the content of the program, the assessment of the trainees enrolled, and the verification of their competence at the

completion of training. These program directors have unique perspectives on fellowship training, both with regard to the operationalization of the RRC and ABP requirements for their specific subspecialty, and to the individual and collective impact they have on the trainees in their respective programs. As such, they represent an important group whose views cut across the entire breadth of the range of the subspecialties.

Recently, the ABP has undertaken an effort to examine the components and structure of pediatric fellowship training through the creation of The Task Force on Subspecialty Clinical Training and Certification. This task force was established to examine a variety of issues including the components and duration of training. To provide the task force with a sense of the current status of training programs and the perspectives of those who are in positions of leadership regarding fellowship training, a study of all fellowship program directors in the United States was undertaken.

METHODS

The ABP provided a list of all fellowship program directors in all pediatric subspecialties ($N = 14$) in the United States ($N = 719$). The number of program directors in a specific specialty ranged from a high of 95 in neonatology to 14 in child abuse pediatrics.

Survey Instrument

In collaboration with the ABP Research Advisory Committee, we developed a 22-item, structured questionnaire to be administered by mail. The survey was comprised of a combination of fixed choice and Likert scale questions and was designed to be completed in 10 minutes or less. The survey focused on program director perspectives regarding the current landscape of fellowship training and perceptions of optimal fellowship training length in all subspecialties.

Questionnaire Administration

The first mailing of pediatric fellowship program director questionnaires was sent via Priority Mail to the 719 program directors in the sample in December 2011. Each survey packet contained a personalized cover letter signed by Dr Gary Freed, the instrument, a business reply mail envelope, and a \$5 bill as an incentive to complete the questionnaire. Two additional mailings were sent to nonrespondents in January and February of 2012.

Data Analysis

Frequency distributions were calculated for all survey items. Next, comparisons were made by specific subspecialty and by respondent tenure as a program director (≤ 5 years vs > 5 years). χ^2 statistics were used to determine the level of association between the outcome variables and the predictor variables.

The study was approved by the University of Michigan Medical School Institutional Review Board.

RESULTS

Response Rate

Of the 719 survey packets mailed, 588 pediatric fellowship program directors returned the survey, 4 surveys were undeliverable, and 4 program directors declined to complete the survey. This resulted in an overall response rate of 82.2%.

Two program directors who returned the survey were ineligible because they were no longer directors of a pediatric fellowship program. This left 586 surveys for analysis.

An equal proportion of program directors had been in their positions for ≤ 5 years or > 5 years.

Perspectives on Clinical Training During Fellowship

Overall, fellowship program directors selected 24 months as the mode for the minimum time in months they believe is

required for fellows to establish clinical competency during training. A majority (65%) of program directors believe that clinical training time should be the same for all fellows in their subspecialty regardless of career path (ie, those who pursue primarily a clinical vs primarily a research career).

Fellowship directors were almost evenly divided regarding whether they believe that there is a need to change the expected amount of clinical training time in their own subspecialty, with 51% stating the amount was appropriate and 48% believing it should be increased. The 2 most common reasons cited for increasing clinical training time were increases in types of procedures and/or complexity of care and the need for further clinical independence (Table 1).

The vast majority of fellowship directors believe that they are able to assess clinical competence of fellows in their program, but almost 1 in 10 were not. Additionally, the degree of confidence in their ability to do so was not uniform (Table 2).

Perspectives on Scholarly Activity During Fellowship

Fellowship program directors selected 12 months as the mode for the minimum time in months they believe should be required for scholarly activity training for fellows, with a range from 0 to 40 months. There was a range of perspectives expressed with regard to the importance of various components of scholarly activity training. Specifically, approximately one-third of program directors did not agree with the statement that "Scholarship Oversight Committees gave programs a greater ability to tailor scholarly activity to each fellow's individual needs than in the past." In contrast, 86% strongly agreed that "training ALL subspecialists to be able to critically appraise new literature is an important component of fellowship training" (Table 3).

Fewer than half (42%) of program directors believe that the amount of

TABLE 1 Response to the Question: "Do You Believe That There is a Need to Change the Expected Amount of Clinical Training Time *in Your Subspecialty*" (N = 583)

Yes, I believe that the expected amount of clinical training time should be <i>increased</i>	48 (280)
Yes, I believe that the expected amount of clinical training time should be <i>decreased</i>	1 (7)
No, I believe that the expected amount of clinical training is appropriate	51 (296)
Why do you believe that the expected amount of clinical training time in your subspecialty should be increased? <i>Please choose all that apply</i> (N = 279)	
Increase in types of procedures and/or complexity of patient care	64 (179)
Need for further development of clinical independence	64 (179)
Duty hour restrictions and other changes during residency have reduced fellow's initial clinical competence	50 (139)
Duty hour restrictions during fellowship have reduced fellow's clinical competence	31 (87)
Additional time is needed for longitudinal case management	29 (81)
Additional supervisory experience is needed	27 (75)
Other	5 (15)

Data are presented as % (N).

TABLE 2 Perspective on Assessing Clinical Competence During Fellowship Training

	N = 580			
	Strongly Disagree	Disagree	Agree	Strongly Agree
As a program director, I am comfortable assessing the clinical competence of fellows in my program to practice without direct supervision at the end of training.	4 (20)	5 (31)	42 (244)	49 (285)

Data are presented as % (N).

scholarly training time should be the same for all fellows in their subspecialty regardless of career path (ie, those who pursue primarily a clinical vs primarily a research career). On average, program directors believe that the ideal amount of time spent in scholarly activity for those fellows pursuing primarily a research career should be 24 months compared with 12 months for those intending a primarily clinical or clinician educator career.

Given that the RRC recommends that programs provide fellows with approximately 12 months for scholarly activity, the majority of program directors (52%) believe that the current amount of time spent in scholarly activity in their subspecialty is appropriate. A smaller proportion (30%) believes the amount should be increased, whereas 17% believes it should be decreased. Among those who believe the time should be increased, the most common reason (87%) selected was that fel-

lows were not adequately prepared to begin junior faculty research positions under the current model, followed by 33% who felt that duty hour restrictions have adversely limited fellows' research time. Among those who believe the time should be decreased, the most common reason (88%) cited was that fellows who plan to pursue a primarily clinical career do not need the current amount of scholarly activity during training.

Program directors affirmed a wide range of activities falling within the scope of what is, or should be, acceptable to meet scholarly activity requirements. Over 80% agreed with the inclusion of bench or clinical research (99%), health services research (91%), and completion of an advanced degree in public health or education (83%). A smaller proportion (75%) included quality improvement (QI) activities or clinical care guideline development or education-based activities (62%) (Table 4).

TABLE 3 Perspectives on Scholarly Activity Requirements During Fellowship Training (N = 586)

	Strongly Disagree	Disagree	Agree	Strongly Agree
Training future researchers in my subspecialty is an important component of fellowship training.	1 (3)	2 (10)	38 (226)	59 (347)
Training ALL subspecialists to be able to critically appraise new literature is an important component of fellowship training.	0 (1)	1 (3)	13 (77)	86 (505)
Training ALL subspecialists to be competent educators/teachers is an important component of fellowship training.	0 (2)	5 (27)	42 (248)	53 (308)
Training ALL subspecialists in quality improvement activities is an important component of fellowship training.	2 (12)	10 (59)	55 (324)	33 (190)
Scholarly activity during fellowship should be tailored to the career goals and interests of the individual fellows.	1 (5)	4 (26)	26 (152)	69 (403)
ALL fellows in my subspecialty should complete a scholarly activity project as part of fellowship training.	1 (7)	7 (42)	29 (169)	63 (368)
Scholarly activity requirements should be more broadly defined.	3 (18)	31 (183)	40 (231)	26 (152)
Scholarship Oversight Committees gave programs a greater ability to tailor scholarly activity to each fellow's individual needs than in the past.	5 (26)	25 (143)	50 (291)	20 (118)
Advanced clinical training, such as cardiac electrophysiology and transplant hepatology, should be offered AS PART OF the current 3-year training program WITH DIMINISHED scholarly activity requirements.	21 (115)	52 (286)	22 (119)	5 (25)
The core curriculum as currently required is a valuable part of fellowship training.	2 (13)	15 (84)	63 (368)	20 (118)

Data are presented as % (N).

Almost all program directors (85%) responded that their program has a core scholarly activity or research curriculum for fellows. Among these, 47% reported that their curriculum is strictly didactic. The majority (68%) stated that fellows from all pediatric subspecialties participate in the same core curriculum together at their institution. The frequency of components of these core curricula is found in Table 5.

Perspectives on the Overall Length of Fellowship Training

Program directors were queried regarding their perspectives in the need to increase or decrease the required overall length of fellowship training. The majority (58%) stated that regardless of career path, the required training for all fellows

in their own subspecialty should remain 3 years (Table 6). However, over three-fourths (77%) of program directors believe it should be the decision of each subspecialty to determine the appropriate amount of overall required length of fellowship training.

Newer (<5 Years) Versus More Experienced (≥5 Years) Program Directors

There were very few differences noted in the responses of those program directors who had been in their role for fewer than 5 years versus those whose tenure in their position exceeded 5 years. However, a greater proportion of program directors who had ≥5 years of experience in their role strongly agreed that they felt comfortable in assessing the clinical

TABLE 4 Which of the Following Activities Fall Within the Scope of What is, or Should be, Acceptable to Meet Scholarly Activity Requirements During Fellowship?

	N = 586
Bench or clinical research	99 (580)
Health services research	91 (534)
Master of Public Health or Master of Education	83 (485)
Quality improvement activities or clinical care guideline development	75 (437)
Education-based activities (eg, developing an educational module on CD-ROM)	62 (366)
Master of Business Administration or other business/financial training	38 (224)
Other	9 (52)

Data are presented as % (N).

competence of fellows to practice without direct supervision at the end of training (55% vs 43%; $P = .002$). These same directors were also more likely to strongly agree that QI activities are an important component of fellowship training (37% vs 28%; $P = .01$).

Among those program directors who believe that the amount of time devoted to scholarly activity during fellowship should be increased ($N = 170$), those who had <5 years of experience in their role were more likely to agree that fellows are not adequately prepared to begin junior faculty research positions under the current model (93% vs 82%; $P = .03$).

DISCUSSION

Among the most important findings from our study is the broad range of perspectives on fellowship training expressed by the program directors. This is demonstrated by the finding that approximately half believe that the amount of expected clinical training should be increased from the current standard. This is likely attributable to the range of clinical experiences believed to be necessary for training across the 14 different subspecialties. By their very nature, some subspecialties involve a greater focus on procedural competence than others.

TABLE 5 Proportion Responding That the Component is an Expected Part of Their Fellowship Program Core Curriculum

	<i>N</i> = 583
Biostatistics	95 (551)
Training in other aspects of research: Institutional Review Board, developing research protocols, etc.	84 (490)
Journal club	81 (471)
QI modules	75 (439)
Epidemiology	73 (423)
Grant or proposal writing course/training	66 (387)
Adult learning, teaching, and curriculum development	49 (286)
Master of Public Health or Master of Education	7 (40)
Master of Business Administration or other business/financial training	1 (5)

Data are presented as % (N).

TABLE 6 Perspectives on the Need to Increase or Decrease the Required Overall Length of Fellowship Training in Their Subspecialty

	<i>N</i> = 583
I believe that the required training duration, regardless of career path, should remain at 3 years	58 (341)
I believe that the required training duration, regardless of career path, should be shortened to fewer than 3 years	2 (10)
I believe that there should be 2 different tracks, a shorter duration track for clinicians or clinician-educators and a longer duration track for fellows who plan to pursue academic research	33 (194)
I believe that the required training duration, regardless of career path, should be extended to more than 3 years	7 (38)

Data are presented as % (N).

Regardless, the development of clinical competence is at the core of fellowship training. The finding that only 49% of program directors strongly agree with the statement that they are comfortable assessing the clinical competence of fellows at the end of training to practice without direct supervision likely needs further exploration. This is one of the fundamental roles of program directors.

Currently, no specific guidance or framework is provided to program directors regarding this important aspect of their role. Development of recommended guidelines or structures for this type of assessment may help some program directors in this area.

This study also examined the perspectives of the program directors regarding the significant changes made by the ABP in 2004 to the previous requirements for a “meaningful accomplishment in research” during fellowship training to a new designation of scholarly activity.⁴ The changes made by the ABP were stated to “recognize the diverse roles that subspecialists play, to allow greater flexibility in the design of fellowship training, and to place greater emphasis on the evaluation of fellow training at the local level.” One of the most significant changes was to require the establishment of local Scholarship Oversight Committees (SOCs) to be responsible for overseeing and assessing the scholarly activity of each fellow. The range of acceptable areas in which work products for trainees to meet the requirements for scholarly activity was also broadened to include basic, clinical, or translational biomedicine; health services; QI; bioethics; education; and public policy.

The idea that scholarly activity during fellowship should be tailored to the career goals of the individual fellow was endorsed by 95% of all program directors in this study. However, almost one-third did not agree that the SOC gave programs greater flexibility to do so. This may be a result of the structure and individual experiences with SOC at specific programs, or a disconnect between the purpose of the establishment of the SOC with how they are being operationalized at the individual program level. Information dissemination efforts from the ABP directed to fellowship program directors regarding the purpose of SOC as well as suggestions for how to maximize their

utility may be beneficial. Another issue may be the paucity of mentors and faculty expertise in some areas of potential scholarly activity. Sharing of “best practices” among programs may be an initial strategy to address this.

There is a wide range of what current program directors consider to be appropriate to meet the criteria for scholarly activity. In one sense, this is to be expected, as one of the stated goals of the changes made in 2004 was greater local control over the academic process. However, the finding that education-based activities were thought by over one-third of program directors to not be acceptable to meet scholarly activity requirements is not consistent with the general guidance provided by the ABP in this regard. Whether the perspective of the program director has an impact on what the individual SOC actually allow a fellow to pursue is unknown.

One inconsistency among program directors is worthy of note. Although 95% agreed that “training all subspecialists to be competent educators/teachers is an important part of fellowship training,” only 49% stated that adult learning and teaching is an expected part of their fellowship core curriculum. Further exploration of how, or if, fellows acquire teaching skills is warranted.

Recently, with the introduction of the Maintenance of Certification Program, a greater emphasis has been placed by the ABP on QI. However, it appears that the role of QI in fellowship training programs is not being embraced enthusiastically in a universal manner. The finding that only one-third of program directors strongly believed that QI activities were an important component of fellowship training may have an impact on the value graduating trainees place on such activities in the future. Furthermore, QI was 1 of the lowest rated components overall by the program directors. Additionally, 25% of program directors did not endorse QI

activity as acceptable to meet scholarly activity requirements during fellowship. With regard to the required duration of training during fellowship, the majority of program directors believe it should remain at 3 years, regardless of career path. However, one-third believe there should be 2 separate tracks, with a shorter duration for those pursuing a clinical or clinician-educator career. This may be seen at odds with the current statement by the Federation of Pediatric Organizations and endorsed by the ABP that the purpose of fellowship training is to prepare all fellows for careers in an academic setting.⁴ Decisions regarding required length of training and whether there should be different options for the different specialties is controversial within the field.

Program directors were more united in their belief that the decisions regarding required length of training be left up to the individual subspecialty. Again, such a change would be a departure from the current culture within pediatrics, where to date such decisions have been determined across all subspecialties. Different models exist within other specialties, most notably internal medicine, in which some fellowships require 2 years of training and others 3 years.

CONCLUSIONS

Variation exists among fellowship program directors in their perceptions of the goals and structure of fellowship training. As there are 14 recognized pediatric subspecialties with a wide range of clin-

ical and procedural priorities, such variation is expected. Determining the best way to both account for and recognize the specific nuances of each subspecialty, while maintaining a common set of standards for the profession, will be an important and ongoing effort into the future.

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