Recommended Protected Time for Pediatric Fellowship Program Directors: A Needs Assessment Survey

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PEDIATRIC FELLOWSHIP TRAINING programs are the primary source of subspecialty practitioners who care for our nation's children. There are 16 Accreditation Council for Graduate Medical Education (ACGME)-accredited pediatric subspecialties made up of 837 individual training programs that graduated over 8500 trainees from 2004 to 2013 in addition to those who graduated from combined board specialty programs that include a pediatric training component.[1] Explicit in the requirements for graduate medical education (GME) accreditation is the key role of the program director (PD), who is responsible for overseeing all educational activities, assessing all trainee and faculty performance, maintaining and distributing all program policies and procedures, directing programmatic evaluation and process improvement, and monitoring compliance with all ACGME regulations.[2] Prior study has identified inadequate PD time as a barrier to complying with ACGME requirements in the nonpediatric subspecialties.[3] Dedicated administrative time has been identified as necessary for innovation and curricular design, and has been linked to ongoing accreditation by the ACGME.[4–12]

The ACGME program requirements for core residency programs and many nonpediatric subspecialties now delineate program administration time requirements for PDs, associate PDs, and other support staff. The time allotted differs by specialty and varies in specification from hours per week to a percentage of total effort.[13] Current requirements set forth by the ACGME range from 10% to 50% full-time equivalent (FTE) staff for the core medical and surgical specialties and for many of the subspecialty fellowships accredited by the American Board of Medical Specialties. For core pediatric residency programs, support of administrative efforts are specifically delineated in the core program requirements: "The program director must devote a minimum of 0.5 FTE regardless of the size of the program."[14] Core pediatric residency programs have recommendations for additional effort support in a graded increase on the basis of the size of the program and includes PDs, associate PDs, residency coordinators, and liaisons. Currently the "ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics" do not delineate any specific required time allotment for fellowship PDs but requires "sufficient protected time."[2]

The goal of this study was to describe current time allotted for PDs in pediatric subspecialty fellowship training programs and to delineate the minimum time required for program administration to meet the regulations outlined by the ACGME.

METHODS

The study was conducted in 2 phases through the use of an anonymous national survey of fellowship PDs. An initial survey was created by the author group using a modified Delphi technique through 5 iterations and consisted of 23 items, including demographic data, definition of an FTE in the respondent's institution, time allotted to administer the program, and the time needed by the respondent to administer their program. The survey was created in REDCap hosted by Vanderbilt University Medical Center.[15] This survey was distributed from August 20, 2013, to October 16, 2013, using the Association of Pediatric Program Directors (APPD) Fellowship Program Director (FPD) e-mail list. As a result of an initial low response rate, these data were considered pilot data.

The study survey was refined using a modified Delphi technique through an additional 3 iterations, and distribution was expanded to include both the Council of Pediatric Subspecialties electronic mailing list and the APPD FPD e-mail list. The study survey was shortened to 6 core items with branching logic, expanding to 9 items if the FPD indicated leadership of 2 programs. The study survey was resent via the distribution lists between February 23 and April 2, 2015, with 2 reminder e-mails and verbal reminders at the APPD spring meeting. All survey responses were anonymous.

Basic demographic data were collected including the subspecialty program and number of fellows in the program. The name of the respondent and the institution of origin of the response were not recorded in the study survey. The FPD time assessment included 2 questions: "How much time (%FTE) do you currently expend in your role as PD?" and "How much time (%FTE) do you feel is required to effectively function in your role as PD?" Data were collected regarding additional resources in order to evaluate the impact of these different administrative supports on the time estimated for program leadership. These supports included the institutional presence of a super fellowship director (SFD), vice chair for education (VCE), associate fellowship program director (APD), program coordinator (PC), or research director (RD).

Approval for this project was obtained from the Vanderbilt University Medical Center institutional review board with exempt status.

Medians and interquartile ranges (IQR) were used to determine the time expended and the time needed to direct a subspecialty training program on the basis of the number of fellows in the training program (program size) and the subspecialty. Independent t test without assumption of equal variances was used to compare means of FPD time needed in the presence and absence of other resources as defined above. The difference was calculated by subtracting the mean %FTE with the resource available by the mean %FTE without the resource available with 95% confidence intervals.

Analyses were performed by SPSS 20 software (IBM SPSS, Chicago, Ill). A 2-tailed P value of $< .05$ was considered statistically significant.

RESULTS

A total of 558 (76%) anonymous responses for the study survey were recorded from the 737 registered individuals in the combined e-mail distribution lists. Ten of the surveys were incomplete and not included in analysis. Of the 548 completed responses, 535 responses were from FPDs of single programs and 13 (2.4%) were from PDs leading more than one program. These dual-program responses were excluded from the analysis sample because the small number limited comparative analysis. Data from APPD indicated that 665 FPDs, 43 associate FPDs, and 5 co-FPDs were registered with the organization at that time and had e-mail accounts listed. Overall, the cohort of completed responses reflects approximately 75% (535/713) of the FPD and associate FPDs registered with APPD and 73% of the 737 recipients listed on the combined APPD FPD and Council of Pediatric Subspecialties e-mail distribution lists. Additionally, these responses reflect 64% (535/837) of pediatric subspecialty programs listed with the ACGME, assuming no duplicate responses.

In response to the question about "time you currently expend in your role as PD," PDs reported a median % FTE expended of 17% (IQR, 10–25). The time expended varied by program size, with the smallest programs (0–3 fellows) reporting a median 10% (IQR, 10–20) and the largest programs (≥10 fellows) reporting a median of 25% (IQR, 20–34) (Table 1). These estimates reflect the time PDs currently spend and were different from the "time you feel is required to effectively function in your role as PD." The time estimated to effectively function in the role also varied by program size, with an overall median of 25% (IQR, 20–30) and ranged from 20% (IQR, 15–25) for the smallest programs to 34% (IQR, 25–50) for the largest programs (Table 1). These time estimates also varied by subspecialty; however, sample size limited the ability to further analyze the effect of program size within a specific subspecialty (Table 2).

Data regarding other resources available to support program administration and their impact on the estimated mean time required were analyzed. Of the 535 completed responses, 465 (87%) reported having a PC, 219 (41%) an APD, 149 (28%) a VCE, 90(17%) a SFD, and 75 (14%) an RD. With respect to FPD time expended, the presence of a PC did not significantly alter the reported PD time for any size program. Overall, programs with an APD reported increased time needed, from 17% to 21% ($P < 0.01$). The presence of a RD reduced reported time for programs overall, from 22% to 18% ($P = 0.043$). The presence of an SFD or VCE did not confer a significant difference in PD time needed. Small and inconsistent effects of these additional resources on PD time were analyzed by size of program and showed no specific trend.

DISCUSSION

Sufficient time for program administration, curriculum design, and education innovation is crucial in any graduate medical education program and is associated with accreditation status. The data demonstrate that pediatric subspecialty FPDs currently may not have adequate protected time to effectively administer their programs. Additionally,

Table 1. FTE Expended Versus Required by FPDs Based on Program Size

Program Size	n	% FTE Expended, Median (IQR)	% FTE Required, Median (IQR)
All	535	17 (10–25)	25 (20–30)
0–3 fellows	219	10 (10–20)	20 (15–25)
4–6 fellows	172	15 (10–20)	25 (20–30)
7–9 fellows	90	20 (15–30)	30 (20–40)
≥10 fellows	54	25 (20–34)	34 (25–50)

FPD indicates fellowship program director; FTE, full-time equivalent; and IQR, interquartile range.

Table 2. FTE Expended and Required for Specific Pediatric and Pediatric-Affiliated Subspecialties

Subspecialty	n	% FTE Expended, Median (IQR)	% FTE Required, Median (IQR)
Adolescent	15	20 (15–25)	25 (20–35)
Allergy immunology	4	24 (12–30)	30 (23–34)
Behavior development	35	20 (10–30)	20 (20–30)
Cardiology	36	20 (11–25)	25 (20–30)
Child abuse	23	15 (10–25)	20 (20–25)
Critical care	33	20 (15–30)	30 (20–38)
Emergency	35	25 (20–30)	30 (25–50)
Endocrinology	33	10 (9–15)	15 (15–25)
Gen pediatrics	1	10 (10–10)	10 (10–10)
Gastroenterology	21	15 (10–20)	20 (15–20)
Hematology oncology	47	20 (15–30)	30 (20–35)
Hospital medicine	12	10 (3–19)	20 (20–20)
Infectious diseases	56	15 (10–20)	20 (16–30)
Nephrology	14	13 (10–20)	18 (10–26)
Child neurology	9	20 (13–21)	25 (20–35)
Neonatology	95	20 (15–30)	30 (20–40)
Pulmonology	42	10 (9–20)	20 (15–25)
Rheumatology	19	10 (5–15)	15 (15–20)
Sports medicine	3	20 (10–20)	15 (15–20)
Palliative hospice	1	10 (10–10)	20 (20–20)
Sleep medicine	1	15 (15–15)	33 (33–33)
Genetics	0	—	—
Transplant hepatology	0	—	—

FTE indicates full-time equivalent; IQR, interquartile range.

the data inform a stepwise increase in the time allotted to meet the ACGME requirements of "sufficient protected time" for PDs specified in the "ACGME Program Requirements for Graduate Medical Education in the Subspecialties of Pediatrics."[2] The minimum specific recommendations would be 20% FTE for programs with 0 to 3 fellows, 25% FTE for 4 to 6 fellows, 30% FTE for 7 to 9 fellows, and 35% FTE for ≥10 fellows, regardless of subspecialty. These recommendations do not include the time necessary to meet the requirements for scholarly activity of the PD (Section II.A.3.d), as research and administrative activities have insufficient overlap.

These recommendations correlate with the ranges identified by multiple ACGME review committees for time requirements in nonpediatric subspecialty training programs, as extracted from the ACGME resource "Expected Time for Program Director."[16] Recommendations for protected time for PDs in the internal medicine subspecialties have required time support ranging from "20–50% depending on the size of the program," though the specific details for incremental increases are not specified. Among the surgical subspecialties, the range of recommended time is 10% to 50%. For those subspecialty programs spanning multiple review committees at the ACGME, the recommended time is 10% to 50%. On the basis of this study, the recommendation for FPD time in the pediatric subspecialties ranges from 20% to 35%, well within established precedent of the ACGME. The ACGME has established that even core pediatric residency programs require 50% FTE allotted to the PD, and for programs with 12 to 30 residents, there must be a minimum of 75% FTE time combined between the PD and associate PD.[14]

The relationship of time required by an FPD and access to other programmatic resources was investigated. Only the presence of a research director was associated with any reduction in PD time, likely reflecting the significant portion of fellowship training occupied with scholarly activity pursuits. A majority of programs had a program coordinator, likely explaining the lack of association with reduced FPD time. However, no data were collected regarding the %FTE allotted to the PC or the scope of their duties (single program vs multiple programs).

Data from the initial pilot study suggest that FPDs would enhance curriculum design, education innovation, and faculty development with additional time allotted rather than focusing on regulation compliance. Currently, PDs spend a significant portion of their current administrative time assuring minimal compliance with ACGME and institutional regulations for training programs. In the current academic medicine environment, competing pressures to provide patient-generated revenue or independent grant funding limit other divisional faculty member time to assist an FPD. Hence, in the era of the ACGME Next Accreditation System self-study and Clinical Learning Environment Review visits, the PD's efforts in ongoing programmatic enhancement will be essential to both maintaining an excellent program and maintaining program compliance with the regulations and maintenance of accreditation.

LIMITATIONS

The first limitation of these data include the use of self-reported time assessment rather than objective observational data collection. A prospective observational time study would be impractical and is logistically not feasible. Second, in order to optimize the response rate, the study collected anonymous survey responses, thus limiting our ability to filter for duplicate responses from an individual program. Third, the survey tool used to collect the data is not a validated instrument; however, the survey was created by content experts, which supports a component of validity evidence for responses collected using the tool. Additionally, these study findings are in agreement with that of the current standards set forth by the ACGME. Fourth, we did not define FTE in terms of hours per week or days per month in the survey tool, but rather allowed respondents to provide their estimate of the percentage of time. Clinical effort is difficult to standardize to hours per week or days per month as a result of the variety inherent in the mix of outpatient and inpatient efforts, combined with specialties that are moving to shift work, such as intensive care and emergency medicine. Finally, it is not clear if the time reported by FPDs included the additional time provided by an associate PD, if present in their program. Thus, specific recommendations for APD time cannot be made from our study beyond including them in the total time recommended for the FPD. Despite these limitations, the strength of our study is the large sample size for the cohort of interest, representing approximately 75% of the FPDs listed in APPD and 64% of the programs listed with the ACGME.

CONCLUSIONS

The findings presented in this study represent the most valid and objective data available to support specific recommendations for time allotment to PDs in the subspecialties of pediatrics. The recommendations include a gradation of time that is based on the size of the training program, from 20% to 35%, which is in alignment with subspecialty training in other disciplines. PD administration time is crucial for program enhancement, which is in turn embedded in the current process for maintenance of accreditation. We realize the financial burden such a recommendation poses; however, excellence in GME requires a sufficient time investment by a cohort of dedicated educators, not unlike the premise that excellence in research requires the time of a dedicated investigator. Areas of future investigation could include a detailed time study of program coordinator efforts and scope of duties as well as more detailed data regarding the definition of %FTE expended or salary support compensation across the nation.

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