

Strengthening the Academic Base of General Pediatrics Fellowship Programs: A National Program and Curriculum Development Project

*Constance D. Baldwin, PhD; Peter G. Szilagyi, MD, MPH;
Benard P. Dreyer, MD; Louis M. Bell, MD; Raymond C. Baker, MD, MEd;
Tina L. Cheng, MD, MPH; Daniel L. Coury, MD; Thomas G. DeWitt, MD;
Paul M. Darden, MD; Anne Duggan, ScD; Stephen Ludwig, MD*

Objective.—To improve academic general pediatrics (AGP) fellowship programs by 1) developing curriculum guidelines and program standards and 2) creating a process for program review and consultation that might later be used for accreditation of AGP fellowship programs.

Methods.—This project of the Ambulatory Pediatric Association (APA) created 4 documents: AGP fellowship program requirements, core curriculum, educational goals and objectives, and a standardized form to describe required program characteristics. Site visits were conducted at 7 volunteer AGP fellowship programs, selected for diversity of content, structure, and location. Evaluations were conducted using a uniform checklist of requirements that combined numerical ratings with a written evaluation summary. Feedback from programs on the review process enabled refinement of the documents.

Results.—The site visits revealed great variety in emphasis among the 7 programs. In general, faculty were dedicated and capable, and programs showed considerable educational strengths.

Typical problems were lack of integration of the program within departmental structures, overburdened faculty, and uncertain funding. Many programs demonstrated suboptimal curriculum planning and weak evaluation methods. Most program leaders felt that the project materials helped to improve the quality of their programs, and 5 of 7 programs expressed willingness to be involved in formal accreditation review in the future.

Conclusions.—AGP fellowship programs that volunteered for piloting of an accreditation process were diverse and vital, with rich educational offerings despite a lack of optimal curriculum structure, minimal evaluation, limited faculty resources, and tenuous funding. An APA accreditation process appears to be feasible and may enhance AGP fellowship programs.

KEY WORDS: academic general pediatrics; accreditation; curriculum; fellowship education

Ambulatory Pediatrics 2007;7:340–347

The evolution of academic general pediatrics (AGP) has been chronicled by leaders of the Ambulatory Pediatric Association (APA) in presidential ad-

resses and articles. In 2003, Stephen Ludwig argued that pediatrics departments must maintain strong AGP training programs to maintain and enhance this growing field.¹ This mandate has not lost its urgency; pressure on academic generalists to lead, innovate, and publish despite heavy service demands has heightened the need for effective preparatory programs. Strong AGP fellowship and faculty development programs are critical to maintaining a vital, renewable source of teachers, investigators, and policy makers to address the evolving health care needs of patients and new opportunities and challenges in education and research.^{2,3}

Ludwig's presidential project addressed enhancement of the AGP discipline through improved fellowship training. He organized a consensus conference which concluded that strengthening AGP fellowship programs was the best strategy to ensure survival of the academic generalist.⁴ These programs typically suffer from a "lack of a unifying structure, lack of any fixed curricular requirements, uncertain funding, and no methods for advertising and promoting the programs to potential trainees." Conference participants recommended that the APA take a leading role in assessing the status of current fellowship programs, developing

From the Department of Pediatrics, University of Rochester School of Medicine and Dentistry, Rochester, NY (Dr Baldwin and Dr Szilagyi); the Department of Pediatrics, New York University School of Medicine, New York, NY (Dr Dreyer); The Children's Hospital of Philadelphia and the University of Pennsylvania School of Medicine, Philadelphia, Pa (Dr Bell); the Department of Pediatrics, University of Cincinnati College of Medicine, Cincinnati Children's Hospital Medical Center, Cincinnati, Ohio (Dr Baker and Dr DeWitt); the Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Md (Dr Cheng); the Department of Pediatrics, Columbus Children's Hospital and The Ohio State University, Columbus, Ohio (Dr Coury); the Department of Pediatrics, Medical University of South Carolina, Charleston, SC (Dr Darden); the Department of Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Md (Dr Duggan); and the Department of Pediatrics, University of Pennsylvania School of Medicine, The Children's Hospital of Philadelphia, Philadelphia, Pa (Dr Ludwig).

Address correspondence to Constance D. Baldwin, PhD, Department of Pediatrics, Golisano Children's Hospital at Strong, Room 4.8164, University of Rochester School of Medicine and Dentistry, PO Box 777, 601 Elmwood Avenue, Rochester, NY 14642 (e-mail: constance_baldwin@urmc.rochester.edu).

Received for publication March 7, 2007; accepted May 30, 2007.

consistent curriculum requirements, creating networks among fellows, improving program marketing, and securing reliable funding. Development of a process by the APA for AGP fellowship program accreditation was also recommended.⁴ More than a decade earlier, the APA Education Committee published educational guidelines for fellowship training in general pediatrics.⁵ The persisting problems in fellowship training noted by the consensus conference participants in 2004 underscored a continuing need for a stronger infrastructure to promote and assure adherence to agreed-upon standards for fellowship training.

To assess the status of current AGP fellowship programs, Cheng et al⁶ conducted a survey of general pediatrics division directors in 2005 that yielded responses from 118 of 199 identified divisions (response rate, 59%). They found that these programs are proliferating: 28% of responding divisions had a fellowship program and 13% proposed to initiate one in the next 2 years. Program duration was typically 2 years (64%) or 3 years (32%), and 76% offered a master's degree or certificate. Clinical effort of fellows averaged 31%, with a wide range (10%–80%), presumably depending on funding sources. The most significant problem identified for both divisions and fellowships was uncertain funding.

Following the recommendations of the AGP consensus conference, a team of APA leaders embarked on a project to enhance AGP fellowship programs by 1) developing curriculum guidelines and program standards, 2) creating a process for program review and consultation, and 3) pilot testing an accreditation process in a sample of volunteer programs. We proposed to test the feasibility of a fair, useful, and efficient process for fellowship program accreditation that might in the future be managed by the APA.

We believe that an accreditation program could enhance AGP fellowships, much as subspecialty fellowships are enhanced by formal approval from the Accreditation Council for Graduate Medical Education (ACGME). Accreditation could provide consistency among AGP programs, adherence to sound educational practices, enhanced academic status, and more secure institutional funding. The long-term goals of our project are to enhance the quality and consistency of AGP fellowships, increase their recognition, promote the academic vitality of future faculty, and make the discipline a more attractive career choice for outstanding residents.

This paper reports on the program and core curriculum requirements that were developed by the APA project team. The documents and tools were pilot tested with 7 volunteer fellowship programs in mock accreditation site visits. Findings from the site visits are reported, including site visitors' evaluations of program quality and responses from programs on the usefulness of the site visits and consultative feedback.

METHODS

Project Overview

In 2005 to 2006, the APA contracted with the Bureau of Health Professions of the Department of Health and Human Services to develop evaluation standards and create a process for review and consultation for AGP fellowship programs. The team met frequently by telephone and

face-to-face. Pairs of team members conducted 7 mock site visits of fellowship programs that volunteered to undergo a nonbinding accreditation review process.

Document Development

Four documents were developed: 1) fellowship program requirements modeled after ACGME special requirements, 2) a core curriculum with a curriculum planning template, 3) educational goals with suggested objectives, and 4) a program description form. Goals and objectives were written with input from the Education Committee⁷ and the Research Committee⁸ of the Ambulatory Pediatric Association and used material adapted from the APA "Educational Guidelines for Pediatric Residency."⁹

Evaluation Measures

After the site visit, fellowship programs received a checklist of all requirements, on which their compliance with each item was rated on a 1 to 3 scale. This checklist was supplemented by written comments and a narrative assessment of the programs' strengths, weaknesses, challenges/barriers, and opportunities for growth and improvement.

In addition, programs were asked to complete a feedback form for the APA project team regarding the utility and convenience of each document and the site-visit process.

Pilot Testing

To evaluate the consultation/accreditation process and documents, we conducted pilot tests with a varied sample of AGP fellowship programs. A list of 43 existing AGP programs was categorized by type (general, health services research, hospitalist, child abuse, environmental health, and advocacy). All programs identified were invited to participate in the project by completing the required documents and hosting a mock accreditation site visit. Eighteen programs volunteered, and from them we chose 8 test sites (excluding programs affiliated with team members). One program later withdrew because of leadership changes, so 7 fellowships participated. The sample included programs that ranged in age, type, and geographic distribution. Four were general pediatric fellowship programs and 3 belonged to other program types.

The site visits were two-way consultations; the site visitors offered suggestions on the planning and operations of the fellowship program, and the programs provided feedback on the requirements, documents, and review process. Site visits occurred in spring 2006. Two project team members, including an education specialist, visited each program. The site visit included a tour of the facilities and separate meetings with the program director, faculty, department chair, and fellows. The pros and cons of a future accreditation program were also discussed.

Feedback from the site-visited programs was used to refine accreditation documents and tools.

RESULTS

Products

The team developed 4 accreditation documents that were intended to create a consistent structure and sound

curriculum for AGP fellowships, without loss of flexibility. Although these tools are suitable for accreditation reviews, we initially used them for consultation only.

The program requirements are a simplified adaptation of the requirements for subspecialty fellowships published by the ACGME. The 13-page document covers institutional eligibility; duration and scope of training; program personnel; facilities and resources; educational program; and evaluation, guidance, and oversight.

A core curriculum (see Table 1) describes how to plan and implement an academic curriculum according to sound educational principles. A cyclical model of a planned curriculum was included to show programs how the curricular elements of educational goals, objectives, learner needs assessments, teaching/learning activities, and evaluation and feedback work together to provide a sound structure for educational planning (see companion paper,¹⁰ Table 1, embedded Figure).

A list of educational goals with suggested objectives describes the content of the core curriculum in 3 academic domains: research, education, and career development/leadership. The list includes 24 educational goals, 13 of which are required (see Table 2). The goals do not address clinical training requirements. Programs received lists of suggested objectives for each of the 24 goals (see companion paper,¹⁰ Table 2), and were encouraged to modify and shorten the objective lists under each goal to create a customized guide for curriculum planning. Each program was required to use its customized goals and objectives to com-

plete a curriculum plan (shown in Table 3, template is populated with sample goals and objectives).

A program description form was completed by the fellowship program prior to the mock accreditation review. This 21-page form was crafted to give the site-visit team sufficient information to evaluate program quality without imposing a large documentation burden. The form describes training sites; faculty and fellows; scholarly, clinical and teaching experiences; and a detailed curriculum plan.

Responses to Programs

At the end of each site visit, program leaders and site visitors discussed the results. Each program also received a completed program review checklist. Ratings for the 7 programs are summarized in Table 4. The reviews revealed many positive features of the fellowships; most were found to be doing an outstanding job of conducting their educational programs. Written comments on areas needing improvement were also provided (see abbreviated comments in Table 5). Typical weaknesses were lack of full integration with the department, limited protection of faculty time for program leadership and teaching, and the absence of optimally planned curricula and evaluation methods.

Program leaders provided verbal feedback to the review team at an end-of-visit debriefing. Three programs also provided written feedback on a form provided by the APA.

Table 1. Summary of the Core Curriculum for Accredited Academic General Pediatric Fellowship Programs

Curriculum Requirement	Requirement Details
A: Goals and objectives	<ul style="list-style-type: none"> • 3 required domains of competence: research, education, career development, and leadership* • 13 required educational goals (see Table 2) • Specific objectives for all educational goals • Prioritization of objectives for each goal
B: Learner needs assessments and progress tracking	<ul style="list-style-type: none"> • Yearly assessment of fellow's learning needs and educational progress • Yearly face-to-face evaluation meetings with fellow • Written remediation plans and additional evaluation meetings if needed
C: Learning activities	<ul style="list-style-type: none"> • Written plan for teaching/learning activities that addresses goals and objectives • Description of activities that includes core content, processes, timeline, and learning resources, who will teach, who will evaluate the learners • Reasonable diversity in learning settings, styles, and formats • Learning choices to customize curriculum for individual fellows
D: Fellow evaluation methods	<ul style="list-style-type: none"> • Focused evaluation of predefined essential objectives • Sound and informative evaluation methods • Multiple assessment and feedback sessions over time • Both faculty evaluation and self-evaluation • Tracking of career outcomes of past fellows
E: Program evaluation and improvement	<ul style="list-style-type: none"> • Faculty evaluated at least annually by fellows • Faculty evaluation forms are sound and informative • Formal feedback in face-to-face discussion with program director • Program self-assessments yearly, with feedback from all stakeholders • Fellows evaluate program yearly • Program evaluations contribute demonstrably to ongoing program improvement

*Clinical goals not included in academic program requirements.

Table 2. Academic Goals For General Pediatrics Fellows*

Required Goals	Optional Goals
DOMAIN 1: RESEARCH	
Research design	
Clinical epidemiology and evidence-based medicine	Advanced statistical analyses and technical expertise
Statistical analyses	Qualitative research
Responsible conduct of research	Use of secondary databases
Scientific communications	Educational research
DOMAIN 2: EDUCATION	
Teaching	Curriculum development
Evaluation of learners	Program evaluation
DOMAIN 3: CAREER DEVELOPMENT AND LEADERSHIP	
Professionalism	
Habit of lifelong learning	Career management
Career planning	Quality improvement
Academic leadership and administration	Health care finance Health policy
Health care organization and delivery	Use of information technology
Pediatric advocacy	

*The text of these goals, and suggested objectives, can be found in Table 2 of the companion paper in this journal.¹⁰

Proposed Program Requirements

The site-visited programs rated most of the program requirements as clearly stated, appropriate for AGP fellowships, and not too rigorous or burdensome. One program expressed doubt that trainees could meet the 13 required goals in a 2-year program. That program suggested reducing the number of required goals and allowing programs to stress 1 or 2 of the 3 domains. Several programs suggested that we allow some program requirements (eg, the Scholar-

ship Oversight Committee) to be met flexibly through an affiliated advanced degree program.

Core Curriculum and Educational Goals and Suggested Objectives

Programs reported that the core curriculum requirements and the educational goals and suggested objectives were useful tools to plan a curriculum and develop structured evaluation methods. More than 1 program expressed appreciation for both the guidance provided by the suggested objectives for each goal and the flexibility allowed for them to customize objectives. One program expressed concern that the evaluation requirements would require an unrealistic financial commitment. Several suggestions were offered to make the documents more user friendly.

Overall Assessment of Site Visit and Consultation

All programs found the site visit and consultation useful, although preparation was considered laborious. The consultation highlighted areas needing development, allowed sharing of experiences between programs, provided tools and guidance to develop a standardized curriculum, offered concrete suggestions to improve evaluation, underlined the need for enhanced communications between faculty and trainees, and validated the existing fellowship program’s strengths in the context of environmental challenges. Programs also appreciated the increased visibility within their institutions brought by the site visit. Some commented that improved political support resulted from the team’s positive comments about the program.

Table 3. Template for Curriculum Planning* With Examples

Curriculum Planning Table with Sample Objectives	Priority for Teaching and Evaluating	Examples of Teaching Activities† (list for all objectives)	Examples of Evaluation Methods† (list for essential objectives only)
	1 = optional 2 = important 3 = essential		
Domain: Research			
Goal: Scientific Communications			
a. Write articles that clearly describe and interpret your primary findings, following the conventions of a targeted journal	3	1–2 published articles on own work	Faculty review; acceptance in peer reviewed journals
b. Edit and evaluate the documents of colleagues and learners, finding constructive ways to share your findings with authors	3	Oral reviews of peer abstracts; written reviews of peer articles/proposals	Critiques of reviews by peers and faculty
c. Communicate effectively to large and small groups in the role of teacher, investigator, or advocate	3	2–3 presentations to different types of audiences	Structured ratings by audience and faculty
Domain: Leadership			
Goal: Academic Leadership/Administration			
a. Conduct strategic planning collaboratively and follow through in a systematic manner	3	Written strategic plan for a major project	Mentor’s review of final report on project’s successes and challenges
b. Run meetings efficiently and with a minimum of interpersonal conflict	2	Lead 3–5 meetings with feedback from participants	Not required
c. Identify and develop a network of people who can help you to succeed, and whom you can help to succeed	3	Attendance at institutional and national meetings; periodic network reviews with mentor	Mentor review of documented network (names, roles, collaborative activities); letters of reference from external colleagues

*Template from Ambulatory Pediatric Association’s “Educational Guidelines for Pediatric Residency, Evaluation and Planning Tools: Rotation Planning.” Accessible at www.ambpeds.org/egweb.

†Examples are provided for illustration only.

Table 4. Results of Program Reviews at Seven Pilot-Site Visits

Review Criteria*	Pilot Test Site						
	1	2	3	4	5	6	7
1 = meets requirement; 2 = needs improvement; 3 = does not meet requirement							
Integration with department and core pediatric residency program	1	2	1	1	3	2	2
Institutional support and commitment to fellowship education	1	1	2	1	1	1	1
Duration of fellowship and balance between clinical duties and scholarship	1	1	1	1	1	1	1
Personnel							
A single program director with time to assure success	2	2	1	1	1	1	2
A designated mentor for each fellow to ensure academic advancement	1	1	1	1	2	2	2
Qualified teaching staff in addition to director	1	1	1	1	1	1	1
Availability of consultants (biostatisticians, programmers, etc)	1	2	2	1	1	1	2
Scholarship oversight for each fellow	1	1	2	1	2	2	1
Adequate facilities and resources to achieve educational objectives	1	1	1	1	1	1	2
Educational offerings							
Program design meets review standards	2	1	1	1	2	1	1
Opportunity to enhance clinical skills with involvement in quality improvement	2	1	1	1	2	1	1
A formally structured curriculum	2	1	1	1	1	1	2
Opportunities to teach and have administrative responsibilities	2	1	1	1	2	2	2
Fellows engage in scholarly activity using advanced skills in critical analysis and research methods	1	1	1	1	1	1	2
Evaluation, guidance, oversight							
Fellow: written evaluation of knowledge, skills, and professionalism	2	1	2	2	2	2	2
Faculty: written evaluation of teaching ability, communications, time commitment	2	2	2	2	2	1	2
Program: ability, communications, evaluation meetings of teaching staff as part of annual program review	2	2	1	2	1	2	2
Interest in accreditation?	No	Yes	Yes	Yes	No	Yes	Yes
Visit helpful?	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*Data represent average ratings of 2–5 subitems in each category.

Potential Participation in Future Accreditation Review

Five of the 7 programs expressed willingness to participate in a future formalized accreditation process led by the APA. They felt that the benefits outweighed the disadvantages of additional requirements and limitation of autonomy. Of the 2 programs that were unwilling to participate, 1 felt that it did not have enough fellows or strong enough academic connections to make academic training the primary goal of the program. Leaders of the other program indicated that their program had a good track record, was well respected, and easily recruited capable fellows. In their view, an accreditation process with formalization of the curriculum and evaluation methods would be constraining and costly, without significant benefit.

DISCUSSION

Acceptance of Consultation and Potential Accreditation Process

Acceptance of the new accreditation requirements and review process by 5 of the 7 pilot test programs was encouraging. Most participating programs indicated that they learned from the review and resulting discussions and felt that their program was improved. They particularly appreciated help with development of a sound written curriculum and more objective-based evaluation methods; some reported positive political effects of the site visit at their institutions.

Tempering these positive responses were dissenting votes from 2 programs, whose negative feedback was in-

structive. One program felt that it was too small to mount a full academic program and needed its 1 fellow mainly to cover clinical duties. As a child abuse program, it also anticipated the availability of ACGME accreditation in the near future. The response of this program suggests that a binding accreditation process might be less acceptable to some smaller or less developed programs, although others might welcome the opportunity for consultative support.

The other program that declined accreditation resisted regulation on principle and for practical reasons. The program was proud of its unique accomplishments and valued the freedom to tailor its program to the interests of its fellows. The program had minimal departmental support and was wary of undertaking regulatory burdens that might reduce its ability to maintain quality with slender resources. In addition, the leaders wanted to emphasize research and not teach education and administrative skills to fellows chosen for their well-developed research interests. Hence, leaders of this program felt they had found a path to success and had valid reasons for resisting the regulations of accreditation. This response may be typical of a subset of well-established programs that choose to decline accreditation review.

Performance of AGP Fellowship Programs

The review results provide a unique snapshot of the status and structure of a selection of AGP fellowship programs in 2006. Most programs visited would qualify for accreditation with some specific improvements. Table 4 shows that evaluation criteria were met by most programs in the categories of institutional support, duration and

Table 5. Areas Commonly Needing Improvement in Reviewed AGP* Fellowship Programs†

1. AGP Fellowships are often not integrated into the core of their department. They are not treated like subspecialty fellowships and may not receive their fair share of resources.
Examples of comments:
 - The program is entirely separate from general pediatrics division activities.
 - The fellowship program lacks organizational linkage with the residency program.
 - The program does not receive institutional resources available for ACGME‡-accredited fellowship programs.
2. Some programs lack key faculty, including a program director with protected time, mentors, and consultants (especially biostatisticians).
Examples of comments:
 - The program director's time allocation for administrative duties (including running the division, clerkship, and fellowship) is only 10%.
 - The few senior faculty are stressed providing mentoring and support to fellows.
 - Pediatric fellows lack easy access to biostatisticians, all in another department.
3. Comparison of our model curriculum with fellowship curricula often identified areas of weakness or omission. Documentation was typically inadequate.
Examples of comments:
 - Many curricular activities lack documentation, especially of fellows' evaluations.
 - Individual learning plans would help the program address unique goals of fellows.
 - The program is strong in education and research, but curricula for advocacy and administrative/leadership lack planning and support.
 - The research component most needed enhancement Fellows lack time to develop a relevant and feasible research project.
4. Fragmentation of program components was common. In some programs, the fellows' clinical work or teaching did not interdigitate with the other parts of the curriculum. Programs with degree programs for research or education often lacked full integration.
Examples of comments:
 - The fellows' clinical work is separate from the residency program and is not supervised by the fellowship director or faculty.
 - The practical teaching experience is not supervised by fellowship faculty or connected to required coursework.
 - The division lacks enough research-oriented faculty to mentor fellows' research.
 - Fellows' research for an MPH degree does not always include program faculty or relate to the fellow's clinical population.
5. Most programs failed to evaluate rigorously their trainees, faculty, or the program as a whole. Evaluation methods are often neither objective nor reliable.
Examples of comments:
 - Fellows have minimal clinical duties and are not evaluated in this role.
 - The self-evaluations by fellows need to involve faculty feedback and follow-up.
 - Distribution of faculty evaluation data is blocked by confidentiality concerns.
 - Program evaluation was limited to tracking fellows' accomplishments and placement after leaving the program; performance was not evaluated.

*AGP indicates academic general pediatrics.

†These data are based on 7 site-visit reports, which were paraphrased to provide abbreviated comments.

‡ACGME indicates Accreditation Council for Graduate Medical Education.

scope, personnel, and facilities. Some weaknesses are revealed in the categories of program integration and educational offerings. Evaluation, guidance, and oversight typically needed substantial improvement. It was quite common for the programs to lack integration with the pediatric department, children's hospital, or in some cases, even AGP divisions. This deficiency stood in the way of full participation of the fellows in the teaching and research missions of the department or hospital and reduced program resources (eg, access to funding and educational support given to ACGME-accredited fellowships).

In general, we were very impressed with the quality of the faculty directing the AGP fellowships but equally impressed with the pressure upon them to perform demanding mentoring with limited institutional support. Indeed, the concentration of the workload among 1 to 3 faculty members sometimes suggested an unhealthy and unsustainable burden. Access of fellows to research mentors and statisticians was sometimes inadequate or available only in a separate institutional unit—a significant, but not insuperable, challenge. To programs that offered degrees in separate schools, we recommended better integration of fellows' research into the program or department (eg, through parallel mentoring in strong research programs in the pediatric subspecialties and shared research education with fellows in related disciplines).

Many of the programs had a constellation of strong educational experiences but typically without the benefit of an integrated curriculum plan. When a curriculum lacks structure, evaluation of trainees is usually weak, and this was the case for most of the programs visited. Evaluation was typically more intuitive than intentional; fellows were usually not told exactly what was expected of them or how they were expected to demonstrate accomplishment of educational expectations. Fellows' evaluations of faculty had similar shortcomings. Evaluation using defined educational criteria is fairer to fellows and yields more useful data for improvement of trainees, faculty, and the program. Some programs visited were prompted by the core curriculum requirements to develop improved evaluation methods for future use.

Unique Features of Accreditation Documents

One significant accomplishment of this project was development of novel program and curriculum requirements for accreditation. Although ACGME accreditation of subspecialty fellowships focuses on clinical knowledge and skills, AGP fellowships do not prepare fellows to sit for Board examinations, and their clinical scope is highly variable. Hence, our proposed AGP requirements 1) focus on academic rather than clinical knowledge and skills, 2) require a core curriculum design that is based on sound

educational and evaluation principles but does not dictate detailed structural requirements of the program, and 3) emphasize objective-based education organized around required and suggested academic goals but offer programs flexibility in implementation of goals. A similar project to pilot test accreditation guidelines for family medicine fellowships¹¹ concluded, as we have, that streamlining the accreditation process and forms is important to winning broad acceptance.

The 3 domains of our academic goals and objectives are not typical of other academic fellowship programs, which generally focus exclusively on clinical care and research. However, our goals in education and career development/leadership are consistent with new ACGME requirements for subspecialty fellowships, which also address the academic rigor of fellowship education and include required activities in education and career planning. Hence, our products may be useful to academic fields beyond AGP. Other disciplines have recognized the importance of fully preparing fellows for academic success beyond research. For example, a national survey of 460 fellowship-trained geriatricians (62% response rate) found that 315 respondents wanted more advanced training in administration and management (53%) and education (6%), as well as in clinical geriatrics (66%) and research (17%).¹² At a later stage of our project, collaboration with other academic fellowship programs might prove fruitful.

Required Content Areas for Academic General Pediatric Fellowship Programs

One finding across the 7 site visits was wide variety in the content of AGP fellowship programs. The reviews applied a set of 13 required educational goals in the broad academic domains of research, education, and career development/leadership. Inevitably, some gaps were found, since these “requirements” were novel. The project team believes that even the less frequently covered goals, such as advocacy and health care organization and delivery, deserve inclusion in all fellowships because they support the career vitality of academic general pediatricians. Improving the coverage of these topics for fellows could be achieved not only within programs but also by national workshops or Web-based teaching modules. Reaching a consensus across the AGP discipline about the true essentials of fellowship training would help motivate programs to strengthen critical academic areas currently not addressed by their educational offerings. Moreover, an accreditation process could help potential applicants to identify fellowships that have a fully formed academic program.

Key Features of an AGP Accreditation Process

Because our accreditation requirements focus on academic rather than clinical criteria, our requirements are *not* intended to define excellence or deficiency in nonacademic fellowships that focus exclusively on clinical care, community pediatrics, or advocacy.

The diversity among AGP fellowship programs suggests that accreditation requirements should strike a balance between structure and flexibility. For example, fellowships enriched by the availability of independent degree programs need the freedom to affiliate with these programs without encumbrance from rigid structural guidelines. On the other hand, good integration of the fellows’ degree-earning research or educational experiences into their own clinical world is optimal. As another example, the rules for maximum clinical time required of fellows needs to be reasonably accommodating, because funding pressures require some programs to finance their operations through fellows’ clinical revenues. Nonetheless, clinical duties should be balanced to allow adequate focus on academic training; we consider a range of 15% to 50% clinical time for fellows to be appropriate. Finally, the length of a fellowship program cannot be mandated without considering the tolerances of applicants. Although our project team preferred a 3-year fellowship requirement, recruitment of fellows for 3 years is difficult and is probably not a reasonable expectation of all programs. We believe that accreditation review needs clear standards, flexibly applied.

Limitations

The scope and number of AGP fellowship programs included in this project was limited, so it is difficult to generalize from our findings about the performance of AGP programs nationwide. However, the sample of programs was chosen to be reasonably representative of programs willing to participate in a mock accreditation review. We suspect that weaker programs may have been reluctant to volunteer for this activity, so the strengths and weaknesses typical of participating programs should be applied with caution to programs nationwide.

Another limitation of our study is that our evaluations focused on educational processes within the fellowship; we did not evaluate performance outcomes of graduated fellows. The absence of well-defined outcome measures has been the focus of criticism of Title VII Section 747 funding programs, a major source of support for fellowship programs in primary care. Reaching consensus nationally and measuring performance outcomes for fellows could facilitate assessments of program impact, legitimize funding, and foster continuous program improvement.

NEXT STEPS

What is the best end point for this project? Should we work to establish a formal accreditation program or continue in a consultative role? We identified a generalized concern about building a rigid system that would require adherence to arbitrary rules and possibly squelch creativity and individuality. On the other hand, we see value in establishing sufficient rigor in AGP program requirements to help programs achieve excellence and political parity with subspecialty fellowship programs. Enhancing the status and visibility of AGP fellowships is critical to attract well-qualified young people into the discipline and to

integrate AGP programs into the mainstream of institutions. Hence, we aim to 1) establish accreditation requirements that achieve a balance between rigor and flexibility, so they encourage individuality among programs and 2) conduct site visits in a primarily consultative mode, even if they are part of an accreditation review. Achieving this delicate balance will be difficult, but essential to gain the trust and acceptance of our colleagues. The family medicine accreditation pilot study¹¹ concluded that peer review might be a more important benefit of their process than accreditation itself, given the high value reported by participating programs of their self-study process and voluntary application of recommended standards.

We believe that it is appropriate for the APA to assume a new role as organizer and central focal point for AGP fellowship programs. Such a role is consistent with the professional development mission of the organization and could ultimately strengthen the APA by helping future members to sustain vital and productive academic careers. During the mock site visits, fellowship leaders expressed a hope that in the future, the consultation or accreditation program might also lead to the cross fertilization of ideas and sharing of curriculum and evaluation tools in a functional network of AGP programs. Sharing among programs to develop a community of educators and scholars is a powerful way to “grow the field,” as argued convincingly by Gruppen et al¹³ in the context of educational fellowship programs. The Robert Wood Johnson Foundation has used this model to good effect in its national programs, organizing annual meetings of faculty and trainees for its General Pediatrics Academic Development Program and its Generalist Physician Initiative Program. Building networks among trainees was a powerful outcome of the National Faculty Development Scholars Program of the APA, as well.¹⁴ Creating an active network of general academic pediatric fellowship programs might be the most important outcome of a formal AGP accreditation program, if one were established.

ACKNOWLEDGMENTS

The project described in this paper was supported by the Ambulatory Pediatric Association and the Department of Health and Human Services,

Bureau of Health Professions, contract HHS240200415024P (funded September 2005). We thank Marge Degnon of Degnon Associates, McLean, Va, for support and sustenance of this project. We also express heartfelt appreciation to the AGP fellowship programs that graciously volunteered to help us pilot test our accreditation process.

REFERENCES

1. Ludwig S. Pediatric phylogeny and lessons learned in the garden. *Ambul Pediatr*. 2003;3:223–227.
2. Cheng TL. Primary care pediatrics: 2004 and beyond. *Pediatrics*. 2004;113:1802–1809.
3. Kittredge D. Sustainable, renewable educational “energy.” *Ambul Pediatr*. 2006;6:274–279.
4. Ludwig S. Academic general pediatrics: from endangered species to advanced scholars of general pediatrics. Report of a consensus conference. *Ambul Pediatr*. 2004;4:407–410.
5. Ambulatory Pediatric Association. Educational guidelines for ambulatory/general pediatrics. Consensus Conference on Academic General Pediatrics Chapel Hill, NC, April 1–2, 2004; Chapel Hill, NC.
6. Cheng TL, Markaikis D, DeWitt TG. The status of academic general pediatrics: no longer endangered? *Pediatrics*. 2007;119:e46–e52.
7. APA Faculty Development Special Interest Group. Six-domains of faculty development. Available at: http://www.ambpeds.org/site/sp_int_groups/sig_faculty_dev.htm. Accessed September 1, 2005.
8. Dreyer B, Schonfeld DJ. Content outline for a curriculum in research education for academic general pediatric and related fellowship programs, version 4-30-05. Available at: http://www.ambpeds.org/site/research/research_committee.htm. Accessed February 21, 2007.
9. Kittredge D, Baldwin CD, Bar-on ME, Beach PS, Trimm RF, eds. Educational guidelines for pediatric residency. Available at: <http://www.ambpeds.org/egwebnew>. Accessed February 21, 2007.
10. Baldwin CD, Dreyer BP, Szilagyi PG, et al. Academic general pediatric fellowships: curriculum design and educational goals and objectives. *Ambul Pediatr*. 2007;7:328–339.
11. Reznich CB, Mavis BE. Pilot test of family medicine faculty development fellowship accreditation guidelines. *Fam Med*. 2000;32:709–719.
12. Medine-Walpole A, Barker WH, Katz PR. Strengthening the fellowship training experience: finding from a national survey of fellowship training geriatricians 1990-1998. *J Am Geriatr Soc*. 2004;52:607–610.
13. Gruppen LD, Simpson D, Searle NS, et al. Educational fellowship programs: common themes and overarching issues. *Acad Med*. 2006;81:990–994.
14. Simpson DE, Bragg D, Biernat K, Treat R. Outcomes results from the evaluation of the APA/HRSA Faculty Scholars Program. *Ambul Pediatr*. 2004;4:103–112.