Spirito et al. (this issue) have provided an important service to the field of pediatric psychology with their recommendations for the training of pediatric psychologists. One challenge is to develop ways to implement these recommendations. This commentary focuses on key issues related to postdoctoral training in pediatric psychology.

What Is the Unique Role of Postdoctoral Training in the Careers of Pediatric Psychologists?

Postdoctoral training is a critical milestone in the training of pediatric psychologists. It facilitates the development of clinical specialization and expertise through clinical experiences with specific pediatric populations, equips researchers to be competitive for funding and to become independent researchers, provides continued clinical experiences necessary for licensure, and, on a practical level, can facilitate the transition to employment.

Who Is Interested in Postdoctoral Training and Why?

The focus of postdoctoral training depends on the experience of the applicants and their goals, which are generally quite varied. Some individuals interested in postdoctoral training have had relatively little experience in pediatric psychology and want to use their training to obtain a broad introduction to pediatric psychology, including clinical work and research with a range of pediatric populations. On the other end of the continuum are graduates of specialized pediatric psychology doctoral programs. Such individuals generally seek an experience that will give them a specialized professional niche in clinical work or research that will be a springboard to a career in pediatric psychology. However, many applicants fall between these two extremes.

How can these training programs meet the needs of individuals with different goals, interests, and previous experiences? The obvious answer is to individualize the program to fit the trainee’s needs. For this reason, a high level of flexibility in the postdoctoral training experience is critical. A good match between what a program has to offer and applicants’ interests and talents is critical. Consequently, as part of the application process, applicants need to clarify their interests and goals, and programs need to articulate the content and structure of the training experience clearly and comprehensively.

How Are Postdoctoral Training Programs Funded and Structured?

In most pediatric settings, the sources of funding for postdoctoral training will influence the structure and content of the program. Based on our experience and published data (Wiens & Baum, 1995), we know there are multiple sources of potential funding both within and across postdoctoral training programs in psychology. Hospital funding through patient care activities is one source. Because revenue received through patient care activities is generally the most critical resource for such fellowships, these programs generally focus primarily on clinical care. In contrast, funding for postdoctoral training can also be provided primarily by a research project. Research training is generally the focus of such programs, where fellows often have a specific role in an ongoing research project funded by a senior mentor.

Postdoctoral research training can also be funded by National Institutes of Health’s (NIH) Individual National Research Service Awards (NRSAs). This type of funding opportunity, generally initiated by a trainee in collaboration...
with a mentor, is tied to a specific research proposal and training plan. Consequently, such funding requires extensive preparation, as well as collaboration between mentor and trainee.

In some settings, flexible funding for postdoctoral fellowships can also be provided by departments of pediatrics or hospitals explicitly for the purpose of postdoctoral training. Because the funding for such fellowships is not tied specifically to research or clinical care activities, program directors and fellows can design and implement a highly individualized training program.

Prospective postdoctoral trainee applicants need to understand how their program of choice is funded and the implications for their training. Prospective applicants should also recognize that some programs, especially the larger fellowship programs, may have multiple sources of funding and hence several different fellowship tracks. The stability of funding may also influence the nature of postdoctoral training. For example, programs with more stable funding generally have greater opportunity for planning and program development.

**What Relevant Professional Tasks Should Be Accomplished in Postdoctoral Training?**

Spirito et al.’s (this issue) recommendations provide a useful template for relevant content areas that need to be considered in pediatric psychology training. However, not specified in the recommendations are when and at what level each of these content areas should be emphasized and what professional tasks should be accomplished at each level. Postdoctoral training, in our experience, should emphasize the development of pragmatic skills and expertise in relevant content areas. In addition, such training should be organized around professional tasks closely tied to the trainee’s stated career directions.

Our experience suggests that postdoctoral training can help in developing a career specialization and expertise, training in writing and publishing manuscripts that reflect a specific research focus, grantsmanship training, expanding skills in supervision and teaching, gaining experience in a range of professional activities, and achieving professional milestones such as licensure and first job.

**Developing a Career Specialization and Expertise**

A basic expectation of any postdoctoral training is that fellows will develop professional expertise in a specific, focused area (e.g., treatment method, population, etc.) in pediatric psychology. Our experiences in training postdoctoral fellows suggest that the identification of and commitment to specialization is critical for professional and career growth. One strategy for providing this opportunity is to focus the program around specialized clinical experiences. For example, we have assigned fellows to a particular medical team or clinic, such as a sickle cell anemia clinic, and fostered working relationships with a team of professionals while consulting on patient care issues. Besides giving fellows practical experience in collaborative professional relationships, this strategy can enhance clinical research projects based on identification of clinical needs. Specialized clinical training can also increase job marketability for those trainees who wish to pursue careers as practitioners.

**Training in Writing and Publishing Manuscripts That Reflect a Specific Research Focus**

For those who are primarily interested in research careers, a fellowship year can provide vital time to focus on writing publications based on data from research, as well as on collaborating and gathering data on new research projects. Consequently, supervisors need to secure enough of their fellows’ time to facilitate their research and writing. Fellows can also work with their mentors to design pilot studies and publish work in the identified area. In addition, mentors can identify opportunities for fellows to co-author data-based manuscripts or chapters in their research focus. Developing a career around specific research can eventually help postdoctoral fellows demonstrate the expertise necessary to obtain independent grant support. To maximize the impact of focused research training opportunities on their career development, fellows should be open to extending fellowship to more than one year to have more time for writing or gathering data for manuscripts.

**Grantsmanship Training**

Another priority area for postdoctoral fellows in pediatric psychology, especially for those interested in academic careers, involves training in preparing grants to fund research. For this reason, we have found that it is useful for fellows to obtain a range of training experiences in grantsmanship, such as obtaining practical knowledge of different types of funding mechanisms such as governmental funding agencies, private foundations, and internal hospital funding; attending didactic lectures on preparing grants held at their institution; and, most critically, obtaining mentored experience in the preparation and submission of grant proposals (Drotar, 2000).
Faculty support for fellows’ grant-related training activities, which is critical for their career development, can be accomplished in several ways: For example, postdoctoral fellowship mentors can assist the fellow in identifying potential funding mechanisms, explaining the procedure of different types of grant submissions, and identifying potential collaborators for the fellow’s research. In some settings, initial training in the grant writing process can focus on the mentor’s grant, with the fellow participating in writing individual sections under mentorship. Mentors may also help their trainees learn about the different components of an NIH grant and the level of detail required by letting them review several successful grants submitted by faculty.

The fellow’s submission of his or her own research training individual grant is a significant goal for fellowship training for one important reason: it is difficult, if not impossible, to obtain mentored experience in preparing grant proposals once one is immersed in his or her first job. Consequently, fellows clearly benefit from the faculty time, support, and available resources necessary to prepare grant submissions during their postdoctoral training. Several governmental funding mechanisms are specifically designed for postdoctoral research training such as the NRSA grant (F32), which provides several years of support for a mentored research project.

To enhance the research careers of fellows in the process of making a transition to junior faculty positions, mentors may want to consider sponsoring and assisting their trainees in writing a career development award (K series) through NIH. These awards are aimed toward clinician-scientists who are learning a new area of research or who require additional training and mentoring to compete independently for research funding. In our experience, this description fits most beginning researchers in pediatric psychology, even the most talented. Because of their training as clinician-scientists and typical focus on clinical research, pediatric psychologist applicants will best fit within the career development award category designated as mentored patient-oriented research (K23).

**Expanding Skills in Supervision and Teaching**

Postdoctoral training also provides an important opportunity for trainees to expand their skills in interdisciplinary teaching and the supervision of psychology students, medical students, and residents. To accomplish this goal, whenever feasible, fellows can also be given experience in supervision of research support staff. Similarly, umbrella clinical supervision can be arranged with psychology graduate students and interns until licensure is obtained. Training in teaching skills can be sharpened through involvement in teaching in departmental seminars, guest lectures in classes, and lectures to parents or teachers. In addition, formal teaching opportunities can sometimes be obtained through affiliated universities. Finally, the opportunity to teach pediatric residents under the supervision of experienced mentors is particularly important for those interested in careers in medical settings.

**Gaining Experience in a Wide Range of Professional Activities**

The fellowship year is an important time to gain experience in a wide range of professional activities, including the management of the multiple work-related tasks that are part and parcel of the professional lives of pediatric psychologists. Mentors can provide valuable feedback on tasks such as how to schedule writing into the workday/workweek and how to manage clinical care and research demands.

Inviting fellows to review manuscripts submitted to journals (with discussion and supervision) provides opportunities for practice in critical review. Mentors may also suggest their fellows as ad hoc reviewers for journals. Involvement in professional societies and associations may be a valuable experience during postdoctoral training. Professional ties with other pediatric psychologists in different settings become increasingly important as the fellow prepares for his or her first job. For this reason, attendance and presentation at professional meetings and speaking with others in the field about job opportunities and research collaborations are important activities.

Whenever possible, fellows can also benefit from opportunities such as assisting in the organization of regional conferences, submitting articles to society newsletters, or volunteering for activities within the Society of Pediatric Psychology (SPP).

**Achieving Professional Milestones: Licensure and First Job**

Supervisors and mentors in fellowship programs should give trainees adequate guidance concerning the critical next steps in their careers and support to complete the necessary professional tasks. For example, exploration of career options, which may entail interviewing for academic positions or clinical staff positions or writing a grant, have to begin midway through the first year or subsequent fellowship year, if not earlier. Other useful opportunities include discussions of how to prepare a curriculum vita, practice in preparing a job talk, and conducting job interviews.
Another important task for most fellows is application for professional licensure. Fellowship programs need to recognize the vital importance of this endeavor and allow time and structure to obtain the necessary licensure hours and documentation and to review material and study as needed. In some instances, a support group of trainees who are studying for the exam at the same time can be facilitated through the fellowship program.

Unanswered Questions and Recommendations

We anticipate that Spirito et al.’s (this issue) recommendations for the training of pediatric psychologists will enhance the quality and consistency of fellowship training. For this reason, we encourage postdoctoral training program directors to use these recommendations to design and implement programs and to inform prospective applicants how the goals for the program reflect these recommendations. Trainees can also use the recommendations as a guide to evaluate the quality of postdoctoral training programs that they are considering.

At the same time, there is extraordinary variation in the content, structure, and quality of postdoctoral training programs in pediatric psychology. Consequently, training recommendations alone will not substantially change the content and structure of fellowship programs unless they are accompanied by more detailed guidelines and perhaps even procedures for accreditation. One example of such structure comes from the specialty of neuropsychology where, under the leadership of the Association of Postdoctoral Programs in Clinical Neuropsychology (2001), progress has been made toward accreditation and credentialing of postdoctoral training guidelines, and objectives for clinical neuropsychology training have been developed.

We believe that there is a need to develop systematic information to guide prospective applicants and mentors in the selection process for postdoctoral training. It would be very instructive to obtain current data on available postdoctoral training programs in pediatric psychology. Consequently, training recommendations alone will not substantially change the content and structure of fellowship programs unless they are accompanied by more detailed guidelines and perhaps even procedures for accreditation. One example of such structure comes from the specialty of neuropsychology where, under the leadership of the Association of Postdoctoral Programs in Clinical Neuropsychology (2001), progress has been made toward accreditation and credentialing of postdoctoral training guidelines, and objectives for clinical neuropsychology training have been developed.

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