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Postdoctoral Training for New Doctoral Graduates: Taking a Step Beyond a Doctorate

The goal of postdoctoral training is production of scientists capable of successfully pursuing academic and research careers (Patterson & Hanson, 1995). The postdoctoral fellowship is a period of apprenticeship. It is a time when one is fully socialized into an academic and researcher role. Building a successful academic career is a complex process that requires an understanding of institutional norms and practices (Brayley, 1996), which means learning to manage time (Crist, 1999; Rosch & Reich, 1996) and learning the academic culture (Parham, 1987; Vassantachart & Rice, 1997). As a new faculty member, a person needs to learn to fit into the academic world, its values, political system, and language. During postdoctoral training, a fellow will build on his or her doctoral education and develop interdisciplinary partnerships, form a network to support his or her long-term development (Waters, 1996), and have the opportunity to work with a mentor (Sorcinelli, 1994).

Benefits and Limitations to Postdoctoral Fellowship

Gaining additional research skills and building the base of a long-term research career are the two essential characteristics of a beginning scholar. During postdoctoral training, a fellow has an opportunity to be free from the diversions of extensive teaching, administration, and clinical practice and is allowed to concentrate on research, grant writing, publications, and presentations. These are valuable experiences not always available to a doctoral student or new faculty member.

There are also limitations to postdoctoral training. First and foremost, a financial sacrifice is required. Often, the stipend for a postdoctoral fellowship is not equivalent to a junior faculty salary. Leaving a faculty or other position, relocating a family, managing stress associated with a new environment, and forming a relationship with a new mentor should all be considered very carefully before making a decision to pursue a postdoctoral fellowship.

Some scholars warn that a postdoctoral program should not be based on the concept that postdoctoral training is designed to make up for what graduate schools fail to teach the student (Albrecht & Greiner, 1992; Gander, 1999). How-ever, doctoral education in many basic sciences and academic disciplines follows an apprenticeship model in which a student works under a renowned faculty mentor or advisor. A high-quality doctoral education consists of receiving research guidance from a faculty mentor, learning about the funding process and acquiring grant writing skills, developing technical skills (data entry and analysis), and developing a long-term research plan. It also includes an introduction to a network of researchers, learning about the dissemination of research results through publication and presentations, and an orientation to the politics of academia and research (Cullen, Pearson, Saha, & Spear, 1994; Pearson, 1996). But the timelines, course work, and dissertation deadlines make it harder for doctoral students to develop these skills in great depth. A postdoctoral program can help overcome these constraints in the area of academic skill development. Hence, the difference between doctoral education and postdoctoral training is one of depth and focus rather than one of compensation for the deficiencies in doctoral education. A doctoral program prepares a student at a beginning level, whereas postdoctoral training helps consolidate the academic skills and scholarly habits in line with a postdoctoral fellow’s long-term career plans.

Why Should Occupational Therapists Consider Postdoctoral Training?

A postdoctoral training period helps one to launch his or her long-term research focus before taking up the demands of academic teaching, service, and tenure timelines. A postdoctoral period should be viewed as an opportunity to enhance research, leadership, and other academic skills and habits, and it should be designed for a person to develop skills and research expertise in a specific area (Lowe, Boyd, & Brunette, 1991).

As occupational therapy continues to expand its body of knowledge, the earned doctorate is more and more required for a university career. As we compete with other academic disciplines...
for respect and resources, recognition will be granted only by way of equivalent faculty qualifications and productivity.

Occupational therapists need to consider postdoctoral training as a requirement necessary to keep pace with other disciplines in academic settings. Additionally, postdoctoral training will help develop the quality of professional leadership critical for the growth of our profession and will develop scientists capable of generating the knowledge needed to improve the lives of persons with disabling conditions.

What To Expect From Postdoctoral Training

Postdoctoral training experiences are based on a mentor–protégé model in which a new doctorally prepared scholar learns from an experienced faculty member (Nolinski, 1999; Waldman, 1992). At the end of a postdoctoral training period, which spans anywhere from 2 to 4 years, a person is expected to have gained expertise in conducting and publishing research, have learned grant writing skills, have established a network of experts in a field of choice, and have formed a research program with long-term research goals.

Some postdoctoral programs give fellows minimal teaching responsibilities as well as exposure to committee work (Finnegan & Gamson, 1996). Faculty researchers emerge rapidly where strong graduate-level programs foster a research milieu and allow students and postdoctoral fellows to join faculty in the research process (Chan & Burton, 1995). For a postdoctoral program to be successful, dedicated mentorship by seasoned academic researchers is necessary (Boice, 1992). Mentoring means guiding and sharing wisdom, expertise, and experience in the pursuit of knowledge (Johnston & McCormack, 1997). It is a process by which a postdoctoral fellow learns from a senior faculty member. A mentor serves as an advocate, socializes the fellow to the organization, and works collaboratively on research and publications.

Senior faculty from other disciplines can also be helpful in the process of scholarly development. Examples of interdisciplinary mentoring relationships might include a psychologist, neuroanatomist, or public health faculty member serving as a mentor for an occupational therapy postdoctoral fellow.

Mentoring consists of distinctive roles, such as role modeling for encouraging, collaborating with, and challenging the mentee (Yoder, 1990). The mentoring relationship is also helpful in networking because an experienced mentor will have many important contacts for the fellow who is trying to establish credibility as a researcher. Sometimes, networking occurs apart from the mentoring relationship, particularly in instances where a mentor is from another discipline.

How Can One Obtain a Postdoctoral Fellowship?

There are two distinctive ways to obtain fellowships. An experienced scholar might have a research budget that he or she uses to support a postdoctoral fellow. In this case, it is usually the responsibility of the person wanting a fellowship experience to seek out the scholar and help write the grant that will provide the fellowship support. Another method is to apply to a federal agency or private foundation for postdoctoral fellowship awards. For example, one might apply to the National Health and Research Development Program for a 2-year postdoctoral fellowship. Disciplines such as psychology, physics, and chemistry have distinctive funds and funding agencies that offer postdoctoral fellowship awards to a number of schools every year (Davis, 1996). At present, the American Occupational Therapy Association and the American Occupational Therapy Foundation do not have fellowships exclusively for postdoctoral purposes, but some graduate scholarships are presently available; these often may be used for postgraduate research.

Federal training funds support well-established postdoctoral fellowships in many disciplines. However, federal agencies award grants only after each application goes through a rigorous, complex review process. The applicant’s credentials, the prospective mentor’s credentials, and the proposed postdoctoral research project(s) are carefully reviewed before awarding the fellowship. These fellowships are usually very competitive.

Several different types of postdoctoral fellowships are available. Individual fellowship awards, such as the Individual National Research Service Awards, are awarded by the National Institutes of Health (NIH). Institutions with a clear research agenda, necessary facilities, and mentors can seek funds directly from such sources as NIH, National Science Foundation, and the Kellogg Foundation to start and maintain a postdoctoral fellowship program. Career development awards, such as the Academic Investigator Award and Clinical Investigator Award (K-series awards), are offered by NIH for junior faculty and experienced clinicians to investigate in specialized fields. Some support organizations, such as the Alzheimer’s Association or the Multiple Sclerosis Society, offer training and research support, particularly if a scholar is doing work in their area of interest and has chosen a mentor who is established with their organization. Each of these programs has specified requirements for application. For example, when applying for a career development award, a candidate is expected to submit a research proposal, commit 75% of his or her effort to the research project, identify an institution at which the research will be carried out, and have the support of the home institution. It should be noted that preliminary work counts in any of these applications, so the graduate student should take every opportunity to publish during the doctoral program and begin to establish an area of expertise that will be strengthened by postdoctoral experience.

Criteria for Choosing a Mentee and Selecting a Mentor

Criteria used in selecting a mentee includes academic performance, research and publication experience, references, motivation, and willingness to work with a mentor (Graham, 1986). In the same manner, an applicant should look for a match between the program and his or her needs. A match needs to be achieved between his or her goals and the program’s goals. An applicant should learn about a potential mentor’s scholarly record and personality characteristics: What is the mentor’s research focus? What methodologies has the mentor used in his or her scientific work? Is the research area congruent with the applicant’s interest? What is the grant writing skill and success rate of the mentor? Will the mentor be available for the period the applicant is looking for? Is the mentor capable of a one-on-one mentoring relationship with the mentee? How did the mentor supervise earlier postdoctoral fel-
lows? Will the mentor introduce the new graduate to the social network of community scholars? These questions are critical to finding a potential mentor. Mentors assist fellows to begin to see their work as it fits into a larger research program. An attempt needs to be made by the mentee, potential mentor, and the institution to bring about an appropriate fit (Mazinski, Simpson, Bower, & Diehr, 1994).

The basic principle for institutions offering postdoctoral fellowships should be a commitment to finding a fellowship placement for a potential postdoctoral fellow whose scientific work will enhance the program’s mission. Additionally, the extent of resources available at the supporting institution should be considered in the decision-making process. For example, there should be secretarial assistance for grant writing and other resources such as technical support with grant development and grant management. The availability of space is critical, as is a clear understanding of why postdoctoral fellowships are necessary to advance the academic program, occupational science, and the profession.

Conclusion

The profession of occupational therapy must support junior faculty and those who aspire to become faculty members to become lifelong learners, critical thinkers, productive researchers, excellent educators, and leaders of the profession. Research involving in-depth individual interviews with new faculty members disclosed that the process of research development requires a longer period than originally anticipated (Reed, 1988; Watson, 1990). Locating a mentor and a viable networking system is a time-consuming task. Finding and joining a receptive research team demands a considerable amount of self-assurance and perseverance. A postdoctoral period gives the opportunity for a new graduate to learn these skills. Academic institutions have complex organizational cultures with expectations, ceremonies, and myths that can be learned and understood with the help of an established mentor. Postdoctoral training fellowships in occupational therapy and occupational science are critical to ensuring the growth and success of our future researchers. Let’s start a dialogue with our graduate students about the need for postdoctoral education to prepare them to be scientists and leaders in the 21st century.

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References


