

VIEWPOINT

Research Requirement for PharmD Students

Frank J. Ascione, PhD, PharmD, MPH

College of Pharmacy, University of Michigan

In this issue of the *Journal*, Murphy et al report the results of a national survey of colleges of pharmacy regarding the offering of research-related coursework and experience to doctor of pharmacy students. Their results showed that few Colleges of Pharmacy have extensive educational programs on research, although the number has increased compared to previous surveys. This low figure is a concern of the authors, who cite a number of supporting position statements from organizations such as American Association of Colleges of Pharmacy, American College of Clinical Pharmacy, Accreditation Council on Pharmaceutical Education, and American Society of Health-System Pharmacists.

I strongly endorse the opinions of Murphy et al regarding the need for more expansive curricular efforts toward teaching research principles to pharmacy students. My opinion is shaped by my experience at the University of Michigan. Although no official records exist, it appears we may have the longest continuous research requirement for PharmD students, which was added when the College faculty voted to create a postgraduate PharmD program in the early 1960s. According to the recollection of one of our previous Deans, the requirement was added because faculty believed such a student experience would reinforce problem-solving skills, provide better understanding of research methodology, and enhance recognition of the need to seek assistance from experienced researchers when called upon to undertake evaluative studies in the workplace.

This research requirement was reviewed and expanded several times in the past 40+ years. We currently require separate courses in scientific literature evaluation, biostatistics, and research design, as well as a research project that focuses on generating new knowledge. The project includes all the components examined by Murphy et al, except that the presentation of results is optional.

In the last 30 years, we have had several faculty debates on whether to keep these requirements. Two

key issues arose during these debates. One position was that the requirements were too limited to develop a competent researcher. The second was whether we had the resources (eg, faculty) to handle the number of projects required. These issues are similar to those identified by respondents in the Murphy et al survey. After each debate, our faculty decided to continue the requirement. We recognized that the pharmacy research experience had a greater impact on students beyond exposing them to research careers. A survey of our alumni supported this belief in which our graduates noted that the research experience improved their decision-making skills, resulting in better marketability and more effective functioning in their careers. The issue of adequate resources was addressed by providing a continued administrative commitment to support faculty research, developing strategies to efficiently mentor students (such as allowing group projects), and expanding the number of faculty members who can serve as mentors.

Our success with the research requirement illustrates that a workable and successful program can be implemented in a college of pharmacy. However, any college undertaking this challenge needs to be dedicated to providing students with a research experience that emphasizes the scientific method and the scientific basis of clinical practice. It is equally important to clearly identify the purposes of the research experience and related coursework. At our school, we identified 3 primary purposes that focus on improving the marketability and career success of our students. One was enhancing the educational experience by improving problem-solving skills and providing an orientation to the scientific method of analysis. The second was to expose our students to learning situations which would foster the development of lifelong learning skills. A third purpose was to provide a starting point for those students who are interested in careers in which research is a vital part of their work (eg, academia and the pharmaceutical industry).

Faculty, in particular, need to be convinced that mentoring PharmD students on their research projects is a critical part of their responsibilities. We

Corresponding Author: Frank J. Ascione, PharmD, PhD.
Dean and Professor of Social and Administrative Services,
College of Pharmacy, University of Michigan. Tel: 734-764-
7144. Fax: 734-764-2022. E-mail: fascione@umich.edu

have developed incentives to motivate our faculty members. These include acknowledging this effort in our faculty reward system, creating an administrative oversight structure to facilitate the projects, providing modest financial support for student projects, and recognizing the top student projects (and mentors) annually.

Teaching pharmacy students about research and the scientific method in a comprehensive manner is a challenge a number of colleges of pharmacy appear to be willing to address. Unfortunately, this group is relatively small. However, I am optimistic our numbers will increase as further evidence is created about the value of this educational focus in the workplace.