

LETTERS

Benefits of Interdisciplinary Learning Between PharmD and PhD Students

To the Editor: Collaborative learning is an important tool in advancing health professional education and has been endorsed by many academic institutions for many years, mostly through interprofessional education.¹ This is especially true in the case of students seeking a doctor of pharmacy (PharmD) degree, where part of students' learning typically involves interacting with other professionals from other health-related schools. The application of interprofessional education in health-related academic institutions has been shown to improve outcomes in education as well as health quality and patient safety.² Less attention has been given to interdisciplinary learning in which students from different disciplines, such as those pursuing PharmD and PhD degrees, embrace the collaborative learning model. Historically, many PhD students within colleges and schools of pharmacy had previously received pharmacy degrees. However, this has changed over time and today most PhD seekers in social and administrative sciences hold nonpharmacy or foreign pharmacy degrees. Thus, the concept of shared learning between PhD and PharmD students is more mutually beneficial because the PhD students do not possess prior knowledge that is taught within PharmD programs. In the spring of 2011, a group of PhD and PharmD students at the University of Maryland attended a course on Pharmaceutical Economics in which they had a chance to participate in cooperative and collaborative learning. Our experience revealed 5 key reasons why interdisciplinary education between PhD and PharmD students should be more widely adopted.

First, the major distinction between our educational trajectories allowed opportunities to share and learn different perspectives. PhD students tend to look at the models and methodology used to evaluate the usefulness of data, whereas PharmD students strive to incorporate findings into the "big picture," such as how data might alter patient care. The opposite ends of the spectrum from which the 2 groups of students originated in our class was evident and often, our macro and micro point of views brought up discussions that were interesting and beneficial for both groups.

Second, differences in educational pedigrees allowed for the development of a mutually beneficial educational experience. Students from both disciplines acted as an informative reference to the other in their area of expertise. PhD students provided help related to the critical assessment

of research findings that use advanced quantitative methods and PharmD students assisted in providing clinical examples that fit into the principles taught in class. This made the application of pharmacoeconomic principles relevant and meaningful for both groups and enriched the learning process by merging theory into practice.

Third, differences in knowledge and training between disciplines bridged the gap between research and practice. During their experience in hospital and community pharmacy practice, PharmD students are trained to apply relevant research findings to improve patient care. Meanwhile, PhD students are trained to develop these research findings by answering research questions using population-based real-world data. The interaction between the 2 main competencies (ie, the skill to generate and apply research findings) developed by PhD and PharmD students, have the potential to optimize innovative patient care.

Fourth, interaction between PhD and PharmD students enhances communication skills. Both PhD and PharmD students can benefit from shared learning in the "classroom-based" setting in preparation for future employment, regardless of the setting. In many cases where researchers and pharmacists collaborate in research, there is sometimes a disconnect because of the lack of in-depth knowledge in each other's areas of expertise. This creates a tension when pharmacists are confronted with advanced quantitative methods and researchers are faced with complex disease states and pharmacotherapy. We realized that the tension was attenuated. This class was an "ice breaker" and many of us felt more comfortable working together in the future.

Finally, interaction between PharmD and PhD students fostered a series of dialogues outside the scope of the course. These "spillover" effects associated with the interactions benefited students in other courses or in other aspects of their training. For example, there is the potential for PharmD students to better understand statistical analysis issues in other classes and the potential for PhD students to understand pharmacy-related applications and/or develop potential research topics for dissertations.

In essence, the variation in the educational backgrounds between students from different disciplines makes "cross pollination" between PharmD and PhD students mutually rewarding. The limited opportunities for interdisciplinary learning represent a gap in training for both PharmD and PhD students. Greater emphasis on filling this educational learning gap is particularly useful in an era where academics, researchers, and policy-makers in the health care arena are striving to improve how we conduct research, practice evidence-based medication therapy management, and identify priorities for improving patient health.

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