LETTERS

New Pharmacy Schools Needed

To the Editor. Motivated by concerns over the increasing numbers of pharmacy school graduates, Dr. Daniel Brown’s letter to the Journal\(^1\) and the American Pharmacists Association (APhA)/American Society of Health-System Pharmacists (ASHP) discussion paper\(^2\) all but say directly that a halt should be put to the opening of new pharmacy schools. If the only career options for pharmacy school graduates were retail and hospital pharmacy practice, then maybe (only maybe) too many graduates are being produced. But maybe not given the pressures building from an aging US population, an improving economy, and oncoming health care reform. Nevertheless, pharmacy school graduates could have many more options with some adaptations made to their education and training, but, regretfully, these other options are not taken into account by those who are worried about the number of graduates produced today. Thus, arguments about the need for more pharmacy schools based on the number of graduates required by retail and hospital pharmacy practice sites obscure the more important issue around whether new schools of pharmacy are needed to make all the possibilities afforded by a foundation in pharmacy real for students.

Health care has evolved over the last couple of decades in ways that extend the value of a pharmacy education well beyond traditional practice sites. The market withdrawals of many prescription drugs have created a need for people who understand pharmacotherapy along with epidemiology, research methods and analysis, bioinformatics, and regulatory science. Payer organizations and benefit administrators need people who understand drug therapy along with benefit allocation policy, public administration, and economics to help them construct rational benefit designs and responsible clinical programming. Patients need comprehensive and comprehensible communications so they can use their drugs and their benefit plans effectively, which has driven a need for pharmacists who can create clear patient communications. Health care businesses have become correspondingly more complex and thus pharmacists with business or law backgrounds are in more demand now than ever. And even within the traditional practice settings, the advancements in automation, clinical decision support systems, and administrative transaction processes generate options for pharmacists who have expertise in industrial engineering and information technology. These are but a few of the growing opportunities for people with a foundation in pharmacy augmented by other skills.

Alas, hiring managers looking for people with a pharmacy foundation combined with other particular capabilities are frustrated that few such people exist. Conversely, people with a pharmacy foundation who want additional skill sets find they have to seek them elsewhere than from integrated programming within pharmacy schools. Therefore, pharmacy schools should be working to produce graduates with the knowledge and credentials that make them effective contributors to health care across a wider range of industries than the traditional practice sites.

The added education and training that pharmacy will need to provide students to qualify them for these expanded opportunities are not trivial. Pharmacy schools will need to integrate innovative and workable dual degree and certification programs into their curricula, and they will need to add experiential sites that correspond to their expanded educational programming. Pharmacy schools cannot do this alone. Accrediting organizations, state regulatory agencies, and professional organizations will be essential partners if pharmacy is to make the changes required to expand the opportunity range of its members and students. Such an undertaking will be hard and will require some imagination, but pharmacy has done it before—most recently to make the doctor of pharmacy degree universal. Pharmacy can do it again—pharmacy must do it again. The alternative, reducing the flow of graduates, is suicidal to the profession and a breach of the profession’s covenant with the people it serves.

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In Reply to “Why We Banned Use of Laptops and ‘Scribe Notes’ in Our Classroom”

To the Editor. In the contemporary world of higher education, institutions are usually quick to adopt the newest technologies. However, some college faculty members appear to be reverting back to traditional methods and steering away from laptop computers and Web-based learning.
The laptop and “Scribe Notes” ban mentioned in a previous letter, “Why We Banned Use of Laptops and ‘Scribe Notes’ in Our Classroom,” by Fink JL brought to light the difficulties inherent in today’s use of computers and the Internet in the classroom. Despite the distractions that laptops cause, to ban their use along with “Scribe Notes” is in essence to “throw out the baby with the bathwater.” The distraction in classrooms is not a factor of the device, but rather a direct measure of students’ willingness to pay attention. It is a commonly held belief that when bored, students will G-chat, check e-mail or Facebook, shop, check sports scores, and even play solitaire. However, based on the undergraduate university experiences of the authors, such inattentive behavior existed in classrooms before computers were commonplace. Therefore, such actions by a minority of uninterested students do not adequately justify elimination of electronic learning for the class as a whole.

Scientists (and clinicians) rightly acknowledge that association does not equal causation. To assert that laptops and other technology are the cause of classroom distraction is debatable. A review of classroom etiquette reveals that students create distractions through behaviors beyond those involving computers, eg, talking, reading a newspaper, napping, walking in late or leaving early, chewing gum, or even littering. Seeing that it is not simply the modern device that causes distractions, one must look elsewhere to discover the reason for lack of student interest and engagement during lectures. Dr. Fink mentions that his course is “designed as a professional practice course,” however, eliminating computers from the learning phase when they are universally used in professional health systems creates an environment that is incongruent with professional practice as well as the academic teaching presentation norm.

Fink’s recommendation that a ban on “Scribe Notes” (or similar electronic “note tools or aids”) establishes a precedent such that each student “generate(s) his or her own notes just as would be expected when interacting with a patient” is without merit. Most lectures create a passive learning environment, whereas a patient interview is a dynamic and intimate exchange between the healthcare provider and patient. This provider-patient interaction often involves the provider asking specific (and unscripted) questions followed by the provider explaining concepts in an active-learning environment. Juxtaposing the use of “Scribe Notes” with the assumption that students will be ill prepared to write their own notes is at best an “apples to oranges” comparison. In addition, if the goal of guiding students to “generate their own notes” were to be successful, it seems more would have to be done than simply eliminating electronic note aids. As observed by this student author, students regularly study and share notes with one another outside of the classroom. Group study and group office hours are similar to “Scribe Notes” and other note aids in that they help students collaborate and share ideas from classroom lectures. Following Fink’s reasoning, since group studying does not exist during patient interviews in the professional world, should group studying also be banned from his course? Electronic learning aids such as Scribe Notes greatly benefit students who do not take adequate notes in a passive-learning environment. They also serve as a safeguard to ensure that presented classroom material is accurately conveyed to the entire class. More specifically, electronic learning aids serve as a reasonable Americans with Disabilities Act (ADA) accommodation for those with language and learning disabilities. Sacrificing an available and useful learning tool is unnecessary to properly prepare students for their future professional work environment and may actually be detrimental to certain students.

Much of the research surrounding the debate of computer use in the classroom centers around law schools and courses taught in the undergraduate setting at larger universities. Teaching modalities are likely similar among various disciplines and pharmacy education is not unique wherein an increasing number of instructors are lecturing with the use of electronic presentations. Some lecturers find that creative use of technology enables a shift from passive learning towards active student engagement. Students who would otherwise not participate in a large non-intimate lecture could do so in novel ways including anonymous questions, Web-based research, or pop quizzes that take only a few minutes. Generally, lecturers use technology to provide students with notes or summaries beforehand as it is advantageous for students to have all their notes in one place with the ability to quickly and accurately access a myriad of educational resources. To assume that the learning environment is enhanced among distracted students and tedious lecturers by banning laptops, electronic notes, or other technology requires a quantum leap of faith.

The Fink Hypothesis of enhancing the learning environment by banning computers, electronic notes, or other technology from the classroom is no exception to requirement of proof via the empirical method. Until sufficient data are presented to support his hypothesis, it should not be readily accepted as the truth by academics. At the end of this discussion the reader may wonder what the best solution is. As John Deighton at Harvard Business School elegantly stated, “Ultimately the only way to ensure that a class member is not on the Web,” or at least not being distracted, “is to conduct an engaging class.” Perhaps a better approach to banning laptops and electronic note
PharmD Education in Nepal: The Challenges Ahead

To the Editor. Nepal is a Himalayan country located between India and China. With a population of 25 million (90% live in rural areas), Nepal ranks as one of the poorest countries in the world.\(^1\) Health care in Nepal is delivered through zonal hospitals and district hospitals in urban areas and through health posts and health centers in rural areas. The primary problem that Nepalese health care is facing is a lack of health care providers at peripheral health care facilities and the need for safe, effective, and rational use of medicines. One strategy to tackle these problems is to develop a quality pharmacy education program and produce enough pharmacists for the country.

Pharmacy education in Nepal is a recent phenomenon. It started with the commencement of the Intermediate in Pharmacy (similar to a diploma) program at the Institute of Medicine in 1972, and subsequently the establishment of the bachelor of pharmacy (BPharm) program in Kathmandu University in 1994; BPharm programs later were started at Tribhuvan University, Pokhara University and Purbanchal University. The neighboring county, India, started the 6-year doctor of pharmacy (PharmD) program and 3-year post-baccalaureate PharmD in 2008, which were focused mainly on the clinical and community aspects of the profession and mandatory practical training at practice sites.\(^2\) Basak and colleagues have argued that introduction of the PharmD program may not help clinical pharmacy education and practice in India. Jamshed and colleagues further stated that the initiation of the 6-year and 3-year PharmD program in developing countries may be due to an upsurge in clinical pharmacy rather than a general interest in a practice-based model of pharmacy.\(^3\) Hence, there are differing viewpoints about the PharmD program in developing countries, especially in south Asia and it is too early for pharmacy educators and policymakers to reach any conclusions about the success and impact of the program on the healthcare sector in general and pharmacy practice in particular.

Over the years, pharmacy practice has moved away from its original focus on medicine supply, ie, distributive function, towards a more inclusive focus on patient care. Increasingly, the pharmacist’s task is to ensure that a patient’s drug therapy is appropriately indicated, effective, safe, and convenient for the patient. The PharmD program in the United States is the epitome of the practice-based model as it evolved from industrial and compounding pharmacy to a more patient-focused program.\(^2\)

Following this global trend in pharmacy education, Kathmandu University started a post-baccalaureate PharmD program in Nepal in the year 2010. The objective of the program is to train the graduate pharmacist in the area of patient care and to orient them with the clinical pharmacist thought process. The PharmD program covers 2 years of basic modules on pharmacotherapeutics of various systems, clinical pharmacy practice, critical literature evaluation and research methodology, clinical pharmacokinetics, and clinical rotation in different hospital departments, followed by a specialization internship in the final 6 months.

The concept of the PharmD is quite new to Nepal, where pharmacists are still struggling to get into the patient care areas. Bhandari and colleagues has stated that ward rounds with clinicians, providing drug information, and research and publication can be some of the activities for pharmacist in Nepalese hospitals, besides their regular responsibilities of dispensing and counseling.\(^4\) Because it is a patient care approach, where pharmacists perform the role of pharmaceutical care provider, there are numerous challenges for the PharmD program ahead. When it comes to the aspect of pharmacy education, curriculum content, manpower, and infrastructure are crucial issues. Pharmacy colleges are rushing for changes and glamor, without seriously thinking about the quality of graduates that will be distributed in the healthcare market and negatively impacting the healthcare system as well as the image of the

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pharmacy profession. Getting a well-trained faculty member with clinical pharmacy exposure is very difficult in a country like Nepal. In addition, creating a well-structured curriculum emphasizing the clinical and patient care approach and getting proper facilities for student to train in this area is a big challenge. For a country like Nepal with limited resources, getting a super-speciality hospital with ward-based pharmaceutical care provision, well-structured curriculum, an evidence-based critical literature database, and conducting clinical research projects is a daunting task.

Sustainability of the PharmD program depends mostly on the performance of its graduate as well as the performance of the pharmacy colleges. Jamshed and colleagues remind us that the PharmD program should not be used as a tool for the pharmacist to be employed internationally or as a sole instrument of professional power and status. The PharmD program must be structured such that the graduate can work in their local settings and provide pharmaceutical care in their own health care structure. The medical college and tertiary health care institution in Nepal offers an ideal practice setting for the PharmD graduate. In Nepalese hospitals, there is adequate patient flow, a variety of patient cases, and the patient are willing to participate in pharmacy care. Therefore, Nepal can provide a great setting for the PharmD student to be trained in patient care. If the PharmD program can create the necessary pharmacy practice structure in hospitals and develop a practice-based academic unit bridging the pharmacy practice with academia, there is great hope for the PharmD program in Nepal.

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