Setting a Solid Pharmacy Foundation

Jan M Keresztes

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There was an unwritten promise when I graduated from pharmacy school that a PharmD degree was being developed to provide what the public greatly needed: a drug information specialist. The new breed of pharmacy professionals would be less of a generalist and more of a specialist in choosing pharmacokinetics, infectious diseases, cardiology, drug information, and others as their future path. With these expanded specialties, the medical community and the public would realize what a valued member of the healthcare team we are. Within a few years of pharmacy school graduation, I realized that there was so much more to be accomplished by pharmacists. My undergraduate degree was a bachelor's degree, and I struggled to find a way to obtain this new PharmD degree. I was extremely fortunate in finding a university that agreed with my belief that existing practitioners should be given an opportunity to achieve the new clinical knowledge base offered in the PharmD program. I took the necessary prerequisites in calculus, pathophysiology, and other areas to prove myself and hopefully be granted an interview to see whether I was one of the chosen few to be accepted into the new breed of pharmacists: the PharmD graduates. I was accepted. Purdue University blessed me with the opportunity to become the first nontraditional PharmD graduate in the US in May 1982.

The rest is history; many practitioners followed the nontraditional path and were thankful for the additional knowledge. We were the selected few and were out to prove our worth to anyone who would listen. There was one drawback, however: other healthcare professionals did not know how to properly fit this new type of pharmacist into the team. We received the PharmD degree but were asked to do the same jobs that we did with the bachelor's degree. I soon realized that if we did not properly educate and train the pharmacy technicians to truly be our support staff, the PharmD degree might not be any better than the bachelor's degree.

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For this reason, I became deeply involved in pharmacy technician education and training at an Illinois community college, South Suburban College. The pharmacy technician students were selected to be part of the training program after a baseline assessment of their knowledge and successful completion of its prerequisite courses. With a 36 credit hour program, the students could graduate within one year. The pharmacist faculty for the technician training program was dedicated, and their commitment helped lead to the development of the Illinois Council of Health-System Pharmacists' pharmacy technician exam at the state level. Eventually, this exam was used by many other states and is now included in the national Pharmacy Technician Certification Board (PTCB) Exam. Over 270 000 pharmacy technicians are now certified. Many community college pharmacy technician graduates tell me now, however, that they have been prepared too well—that pharmacy does not allow them to do all that they were trained to do. How unfortunate that our profession is not more forward thinking!

If all pharmacy technicians graduated from an educational process that required a proper prerequisite background for their acceptance into the program, then maybe pharmacists could begin to use their own education for the betterment of the community. Pharmacists should not be forced to train technicians who come to the job without an entrance evaluation showing that they have proven English, reading, and math skills. It remains acceptable to train pharmacy technicians on-the-job, in a short course of 50–60 hours, or on videotape or the Internet. A mandatory education with set objectives and an accreditation process demanded of most healthcare educational programs remains an elusive goal. In fact, in some states, a pharmacy technician can be 16 years of age with no previous training. This fact is almost shocking in today's healthcare environment, when even a grocery clerk must be at least 21 years of age to scan an alcohol purchase for a customer. Does it then seem right for pharmacy to allow a 16 year old to complete a customer's purchase of controlled substances? The American Society of Health-System Pharmacists (ASHP), along with the support of other pharmacy technician educators and pharmacy technician organizations, has developed and revised the Model Curriculum for

Pharmacy Technicians, which can be found on the ASHP Web site and downloaded as needed. It would be convenient if this standard could be the baseline for all pharmacy technician education.

Many pharmacists in practice discourage pharmacy technician students on the experiential components of the ASHP-accredited programs from graduating from their college technician programs. They comment to the students that they could have been hired without so much schooling and been trained on-the-job. Maybe we need to do a better job of informing our college of pharmacy students that when they graduate and enter practice, they should expect the technician to have been schooled to meet basic practice standards, especially with respect to pharmacy calculations and good communication skills.

Some pharmacy practice sites believe that there should be different levels of technician training specific to that area of practice (eg, community vs hospital). To this I say, the PharmD curriculum educates students to enter pharmacy practice in any setting. They graduate once they have proven that they have completed the guidelines as set forth by their educational institution through the Accreditation Council for Pharmacy Education (ACPE) and focus on a specific area only after graduation. If one standard education is expected of all pharmacists, then the same should be true for the education of pharmacy technicians.

Certification through the PTCB established that a certified pharmacy technician (CPhT) had some baseline knowledge of the profession equivalent to about 6 months of on-the-job experience. There are over 270 000 PTCB-certified pharmacy technicians nationwide. But many more are needed. Completion of an ASHP-accredited pharmacy technician program should be required before the students are able to sit for the PTCB exam or any other pharmacy technician exam being offered nationally. If we care to ensure that pharmacy technicians will take on some of the responsibilities of the pharmacists, then we also must ensure the public that the technicians are capable of doing that.

We struggled as a profession to standardize pharmacists' education and have made PharmD the entry-level degree. Many graduates now hope to learn more through general and specialized residencies, and many also apply for fellowship programs. In fact, in 2005–2006, ASHP had 1208 pharmacists complete postgraduate year 1 residency programs and 233 complete postgraduate year 2 specialty residency programs, for a total of 1441 residency completions in one year. In 2007, over 1900 pharmacists have so far applied to the matching program to be placed into a residency program. The interest in these residencies continues to grow.

I agree with Dr. Rapp about the major changes in the pharmacy profession between 1970 and 2007. Today's newly graduated pharmacists have a much larger medication knowledge base and more opportunities to develop their interests in general and specialty residencies as well as in fellowships.

I also realize that the days of rote memory are behind us and that basic information is at our fingertips, usually via the Internet. I think that those of us who have been in practice for several years find it unusual that pharmacy students can download the professor's PowerPoint presentations, have the lecture audio downloaded on their iPods, and achieve a passing grade in the course with minimal attendance in the classroom. Isn't technology wonderful?? What seems to be missing is the interaction of fellow students who, through study groups, challenge their classmates to see various aspects of the disease or treatment. Sharing and discussion, the feeling of camaraderie, and the development of study groups appear to be less prevalent than they were in the past. Learning to be challenged even in a study group allows the student to develop communication skills quickly.

Like Dr. Rapp, I am concerned about the increasing number of pharmacy schools throughout the nation. I know that the ACPE is responsible for maintaining a high quality of education, and it is doing a wonderful job. But again, like Dr. Rapp, I wonder where the new schools will find enough motivated preceptors.

The pharmacist shortage continues to be a major reason that more colleges are offering the pharmacy curriculum. Certainly, the bottom line has a lot to do with that decision: if there is a need, then the students will come and pay tuition. Thus, the university's bottom line improves.

My recommendations for improvements in pharmacy practice include:

1. Accept students into the pharmacy technician training program only after they have proven themselves to have a capability in reading, English, math, and computer/typing skills as a baseline standard. (Provide refresher courses for those who do not have these capabilities.)
2. Have pharmacy technicians complete an ASHP-accredited program where standards are set and the technician must graduate in order to be employed. To my knowledge, pharmacy remains one of the only healthcare professions that does not require some type of education or training for its "help" (ie, technicians) prior to being employed.
3. Pharmacists should not have to teach pharmacy technicians on-the-job.
4. Pay the pharmacy technicians a living wage to encourage only the best candidates to join our profession. Students often join the pharmacy technician program, which is a community college training program, when they have not been accepted into the nursing, occupational therapy, or radiology technology programs. Thus, the pharmacy technician program becomes their default healthcare career.

5. Encourage more colleges of pharmacy to spend more time discussing how pharmacists should interact with pharmacy technicians. Teamwork is essential in our profession, and teaching pharmacists how to train technicians or, ideally, to expect the technician to graduate and enter the job market already educated and trained, is vital.
6. Pharmacists must seek a way to consult with every patient who receives a new prescription (or answer patients' questions about their old drug regimen). If every pharmacist receives a provider number and is reimbursed for cognitive services, we may see the public start to value our services if their health status improves. The Asheville, North Carolina, studies show how pharmacists can make a positive impact on community health care.
7. Pharmacists should provide a private consultation area, preferably an office, where patients can tell the pharmacist about embarrassing adverse effects their medication may be causing, such as impotence, flatulence, or increased urination. Patients often will not openly discuss some of these bodily functions when another patient, neighbor, or friend stands 6 feet behind them; in these instances, they would prefer to pay for the prescription and leave quickly.
8. Pharmacists should have a complete medication profile available to them at the time the patient picks up the prescription from the pharmacy. Service is less than optimal when a pharmacy technician enters the prescription into the computer and fills it and the pharmacist checks it without viewing a medication profile.
9. Prescription computer programs must have a way of listing over-the-counter and herbal products for inclusion into the drug–drug interaction modules. To fully benefit the patient, pharmacists need to have the full picture.

When I was a pharmacy student, our professors stressed that when in practice we will have to decide between profits and professionalism. You would think that this issue could have been resolved within the 3 decades after my pharmacy school graduation; however, we are still struggling with the issues surrounding profits versus professionalism. If pharmacists cannot meet the public's needs, automation will soon take over the profession. After all, barcoding the prescription, barcoding the medication, barcoding the patient, and putting the medication in a vending machine that yields the prescription with all the information the patient needs in the language that they choose would replace the need for pharmacists and technicians. Do we really need all of these new colleges of pharmacy—or just more forward-thinking pharmacists?

Our pharmacy profession can prove its worth only if we show positive results from our efforts.

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