



TWO DIFFERENT WORLDS OF PHARMACY PRACTICE AND EDUCATION – UNITED STATES OF AMERICA AND INDIA [PART 1 OF A 2-PART SERIES]

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DURING MY VISIT TO India this summer, I learned that the Indian government had approved the awarding of Pharm D. degrees in India, beginning in 2009. I received my B. Pharm from a university in India in 1974 (which, at that time was equivalent to a BS in pharmacy in the U.S.), and not one of my B. Pharm classmates went on to practice pharmacy in the classical sense (i.e., in either a retail or a hospital setting). This statistic should not be surprising, because 98 percent of “medical shops” (as pharmacies are referred to in India) are managed by personnel who have completed a two-year diploma in pharmacy (Berg, 2001). In the typical Indian hospital, it is estimated that 75 percent of pharmacy personnel have a two-year diploma; 20 percent have a B. Pharm degree; and 5 percent have a M. Pharm degree (Berg, 2001). If Indian pharmacy graduates are compared to pharmacy graduates in the United States, it can be noted that over 86 percent of U.S. pharmacy graduates actively practice pharmacy (Mott, et al., 2006).

As a pharmacy practitioner in the United States for the last decade and one who is currently teaching an all-Pharm D. class (BS degrees in pharmacy are no longer awarded in the U.S.), I have wondered whether, under the current rules and regulations of pharmacy practice in United States, the benefits of a Pharm D. education can truly be realized. In this two-part article, I provide a brief commentary based on my personal experience regarding the status of pharmacy practice and education in both the United States (Part 1) and in India (Part 2). I firmly believe that in both countries, significant changes in regulatory, legal and workplace standards are required before the true goal of Pharm D. training can be delivered, that is, in terms of optimum therapeutic outcome for each and every patient.

The American Pharmacy Scene

What It Takes To Become a U.S. Pharmacist

Before a person can consider sitting for the pharmacist licensure examination in any state in the United States, that person must have graduated from an accredited school and attained a pharmacy degree. The Pharm D. is the only degree awarded in pharmacy (in full, it is called a Doctor of Pharmacy), and it takes a minimum of six years of post-secondary education to graduate with a Pharm

D. Previously, a BS degree in pharmacy existed, and it included a five-year curriculum. The Pharm D. was initially offered as an option for students who were interested in practicing in a more specialized setting that required further clinical training; the Pharm D. degree eventually replaced the BS degree. I believe that removing this option was unnecessary, because no additional adjustment was made in the marketplace. In the final year of the Pharm D. program, students rotate through specialized pharmacy settings to develop clinical skills.

Pharmaceutical Distribution in United States

Drugs available in the United States can be broadly classified into (a) those that require a prescription from a medical practitioner before they can be dispensed and (b) those that are available over the counter (OTC). In the United States and, I believe, in most developed countries, this distinction is strictly enforced. Members of the Federal Drug Administration (FDA) (in the U.S.) are responsible for studying the safety of a drug and determining whether it can be dispensed with or without a prescription. A new drug usually starts “life” as a prescription-only drug, and once it has been on market for several years, based on its safety record and usage, it may be reclassified as an OTC product. This appears to be both a logical and commonsense approach to maintaining patient safety—that is, maintaining strict standards for a drug’s usage until it has “interfaced” with the rest of the American health care system. The pharmacy board in each state is responsible for enforcing the pharmacy laws of that state. A person must be a licensed practitioner in the state where he/she will practice. Because most states have reciprocity agreements, a pharmacist licensed in one state can obtain a license in another state by passing the second state’s pharmacy law exam and paying a licensure fee. To renew a license annually usually requires the pharmacist to complete a certain number of hours of continuing education.

American Health Care System

In America, health care is currently treated like other commodities. Health care insurance is considered one of the most important work and life benefits, and many large employers include it as part of their employee benefit packages. Persons working for some small companies or those who may own their own businesses usually have to purchase health insurance or a portion of it. Depending on the state in which a person lives, health insurance can cost from \$6,000 to \$12,000 annually for members of a healthy family who have no preexisting conditions. Please note the word healthy. Insurance companies are for-profit entities, and they are responsible to shareholders for turning a profit; they are not interested in accepting “sick” customers. As a result, each year the number of **uninsured** people in United States has steadily risen.

If a person can get an “inside look” at the American health care



system he or she will no longer be surprised that it is one of the most costly and least efficient systems compared to other systems in developed countries. For example, assume a person has been diagnosed as having diabetes. That person may know the medication needed, and how to take it, but this person perhaps cannot get the medication unless she or he has a prescription. Getting a prescription (if necessary) could require a minimum of \$75 for a doctor's visit (if this person does not have health insurance). If the patient couldn't afford the physician's fee, his condition will eventually worsen, resulting in a visit to the emergency room, which is very expensive. For over 45 million Americans who are uninsured or underinsured, health care is managed through emergency room visits rather than visit to their primary care physicians. The result besides stress to the patient is the worsening outcome per health care dollar spent in the United States compared to handling this very same problem in the rest of the developed world. Truly, as health care premiums increase yearly (some by hundreds of dollars as a person reaches middle age or becomes ill), the result will be that more and more people will not be able to afford health insurance; besides the terrible cost to the person involved, another result will be passing on the costs by increasing premiums for people who do have health insurance.

The Real Life in a Pharmacy

After six years in pharmacy school, a pharmacist who graduates from a university in the United States is very well trained to be a clinical pharmacy practitioner. Unfortunately, in most retail pharmacy settings there is limited scope for using the extensive knowledge gained via such an education.

I have always wondered, why, after all this training a pharmacist must ask a doctor whether he/she can change an ointment to a cream? I am dismayed that the pharmacist must call a doctor to clarify a "100 mg synthroid" prescription (synthroid only comes in microgram strength, but doctors often write milligram erroneously). Why can't the pharmacist make such judgment calls regarding a prescription without a doctor's approval?

If we want to encourage a pharmacist to practice to his/her potential, rules should be modified such that the pharmacist has the power to make any changes to the prescription that are appropriate and in balance with his or her professional judgment. The doctor should, of course, be notified of any such changes. In seven years of practice at a hospital (where pharmacists do have a little more room for interpretation and using their professional judgment), I have sent numerous clarifications for "reasonable changes," and not one of my decisions was questioned.

This simple example can help to illustrate the "powerless" position of the pharmacist in the current U.S. health care system.

Doctors write "Prevacid QD," which means "the Prevacid brand of lansoprazole once daily" to treat acid reflux. Time after time, I have seen pharmacists copying the order as "take one tablet daily." Pharmacists do know, after three years studying solely about drugs, that this tablet will be ineffective if taken just any time during the day, as recommended by the physician. This medication must be taken 30 minute before a meal (usually before breakfast) to be fully effective in blocking the proton pump and therefore the acid secretion in the stomach. If a pharmacist wants to make the best use her or his education that person will be passionate about labeling it correctly, writing "take one tablet before breakfast." Under the current pharmacy law that action would be deemed "illegal," because pharmacists are not allowed to interpret prescriptions. Yes, pharmacists can, if they wish, call the doctor and ask approval to make this (obvious) correction. However, when pharmacists are faced with the daunting task of filling 150 prescriptions a day, answering phone calls, and checking insurance claims, they adjust to the new reality of their professional handicap by sticking a small warning label on the prescription of lansoprazole, in unreadable type, which states "take on an empty stomach before meals." After six months of practicing in a situation as difficult as this one, and , unable to put into practice what she or he has learned in school without permission, the new pharmacist may simply end up "forgetting" everything he or she learned and become a well-paid "robot."

This is not to say that there are no "islands" of pharmacy practice where the whole health care team works collaboratively to deliver optimal patient care. Cranor, Bunting, and Christensen (2003) and many other authors have clearly demonstrated the valuable role pharmacists can play in the health care system, resulting in both cost-effective and therapeutic outcomes. The conversion of the BS in pharmacy to the PharmD. in America was certainly made with the hope and vision that every pharmacist would provide pharmaceutical care. Although educational curriculums have been modified to meet this goal, legal and regulatory support to accomplish this change is incomplete.

In public surveys, pharmacists repeatedly rank very high on the "most trusted" professional list, but this has not translated to professional respect. In spite of numerous articles that repeatedly state that pharmacists are among the most underutilized health care professionals, in most practice situation they continue to be underutilized. Even after the "Ashville Project" was published (Cranor, et al., 2003), the federal government proposed a diabetic service reimbursement plan that includes as providers physicians, nurses, and dieticians **but not pharmacists!** Even though the American Pharmaceutical Association (APhA) and other national pharmacy organizations have long fought for pharmacist recognition in health care and compensation for pharmacists' services,



they have thus far attained only limited success.

I believe the major reason for this problem is a turf battle between different health care providers involved in patient health. In the United States, payment is based on treating sickness; rather, the emphasis must be on the health care provider being rewarded for keeping patient healthy. This faulty “payment-based system” has resulted in health care providers working to protect different turfs rather than acting as a unified team in the interest of the patient. In situations where individual profit incentives have been eliminated, collaboration comes naturally. Take, for instance, situations in a hospital setting where hospital reimbursements are capped by the insurance company. This means that the hospital gets a fixed dollar amount from the insurance company for treating a condition (e.g., \$3000 for a normal delivery of a baby and \$8,000 for C-section); if the hospital spends more than the reimbursable amount on the patient, the hospital incurs a loss on that transaction. It is therefore in the hospital’s interest to get the patient better and discharged early, and under such conditions the whole health care team functions in a more collaborative fashion

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