

Editorial

Education of Pharmaceutical Sciences in Iran

Mohammad Sharifzadeh

Pharmacy is the art and science of preparing, administering and monitoring the effects of drugs to help other people. Pharmacy is the health profession that links the health sciences with the chemical sciences, and it is charged with ensuring the safe use of medication. Pharmacists are health professional who practice the art and science of pharmacy and have many areas of expertise and are a critical source of medical knowledge in clinics, hospitals and community pharmacies throughout the world. In many countries, to become a registered pharmacist, students must complete a Doctor of Pharmacy degree (Pharm. D.). Pharmacists understand how drugs work in the body and how they might interact with each other. The greatest strides during recent years in expanding the role of pharmacists in some of the developed countries have been in the area of collaborative pharmacy practice. Collaborative practice agreements have a variety of patient areas. The forces of change in the practice of pharmacy include an increasing recognition of the need for processes to ensure medication safety and recognition of the effect of Medication Therapy Management (MTM) in ensuring positive outcomes of medication use and reducing costs such as those resulting from adverse events and drug interactions. The changes in the practice of pharmacy, combined with an aging society with chronic disease and newly approved medications, result in the need for a significantly expanded pharmacist work force with appropriate education and training to fulfill the mission of direct patient care. The expanding range of responsibilities that are coming under the purview of pharmacists from managing the acquisition and quality control of drug inventories, to assuring their safe and effective distribution to patients in various settings, to collaborating with physicians, nurses, patients, families, and indeed whole communities as trusted team members and leaders in the patient care and public health enterprises.

Pharmacy practice is transforming all the time and the challenges ahead are formidable. I personally think that pharmacists and their teams contribute significantly towards improving people's health and bringing care closer to patients. Therefore, I am fully committed to put forward, and do my best to get support for it, the proposal for "bringing care closer to patients", that is pharmacists, general practitioners (GP) and commissioners' work together to achieve a better health care to the patients. But, there are a number of key challenges to overcome if the fantastic examples of new and novel pharmacy services are to increase in number and become more than just examples of innovation. I hope, we all as pharmacists, will help consolidate pharmacy's position as a clinical profession whilst highlighting the huge social role that pharmacists play in millions of lives everyday.

This secretariat is very keen for university academics and pharmacy students to have their say in the future of the profession. We should do our best to convince the health authorities quite logically through constructive dialogue and put forward proofs and documentations that pharmacy will play a greater role in the future of healthcare in this country.

It can be anticipated that with the support of the authorities and the university academics and students, the profession of pharmacy will develop quickly by securing a more mainstream role of pharmacy, especially clinical areas and elevating pharmacists' professional status. Therefore, each of us has a stake in the future of this profession, so you all should take part in the consultation to ensure that you have your say about the profession, your future and the future of our younger generations, to ensure that pharmacy is at the forefront of healthcare for patients, now and in future.

Whether you are joining the profession or are soon to retire, you have a stake in the future. Pharmacy students and newly qualified pharmacists will have a lifetime in the profession.

The primary objectives of this editorial are to briefly present the achievements and activities of the secretariat of pharmacy of Iran over the past two years.

1. This secretariat leads and supports the development of the profession of pharmacy within the context of the public benefit. This includes the advancement of science, practice, education and knowledge in pharmacy. In addition, it promotes the profession's policies and views in a number of different forums.
2. This secretariat has the responsibility for a wide range of functions that combine to assure competence and fitness to practice. These include controlled entry into the profession, education, registration, setting and enforcing professional standards, promoting good practice, providing support for improvement, dealing with poor performance, dealing with misconduct and removal from the register.
3. This secretariat supervises and reports the activities and the decisions made by its various boards of specialty.
4. It organizes and holds comprehensive basic sciences exams twice a year for the Pharm. D. students.
5. It organizes and holds the competitive nationwide entry exams and the subsequent scientific interviews for M. Sc. and Ph. D. students annually.
6. Choosing the qualified members of the various boards based upon their scientific records and activities.
7. Considering and investigating meticulously the applications from medical universities of Iran for the establishment and approval of new schools of pharmacy.

The board members meet regularly to discuss key issues affecting pharmacy and to decide on policies and practice. They advise the secretariat on particular areas of pharmacy policy. The board members have all expressed a desire to concentrate on the major issues that really matter to pharmacy education in Iran.

We are now preparing the strategies for the coming years. We are always keen to hear your views on the types of issues you think we should be concentrating on, so please e-mail me with your suggestions.

The course level of pharmacy in Iran is Pharm. D. The number of Pharmacy faculties is 14 and recently 5 internationally schools of pharmacy were approved by Ministry of Health and Medical Education. In the present time more than soo Ph. D. students are studying eleven Ph. D. and specialty courses in faculties of pharmacy as admitted residents.

These programs include: Pharmaceutics, Pharmacognosy, Pharmaceutical biotechnology, Medicinal chemistry, Clinical Pharmacy, Nuclear pharmacy, Economics and management in pharmacy, Traditional pharmacy, Drugs control, Pharmaceutical nanotechnology and Toxicology.

Based on the country requirements most of the faculties increased the number of Pharm. D. and Ph. D. students significantly in last two years. The quality of education as well as the well recognized of scientific publications in the international journals contributed by the Iranian schools of pharmacy academics brought high rank in pharmaceutical sciences for Iran in the region.

The key message I would give is to always remember our unique education and training. I believe the secret to success is being creative and delivering this service across new and different settings throughout the country where it will bring additional benefit to our people and health system.

Dr Mohammad Sharifzadeh is currently working as the professor of pharmacology at the school of pharmacy, Tehran University of Medical Sciences, Iran. He could be reached at the following e-mail address: mSharifzadeh@sina.tums.ac.ir