REVIEW ON CLINICAL PHARMACY EDUCATION IN GUJARAT

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INTRODUCTION

The Past and Present of Pharmacy

The beginning of pharmaceutical education in India was initiated at the Banaras Hindu University (BHU) in 1932 by Professor M. L. Schroff. From there it has been a long journey of almost 80 years for this profession in this country. The enactment of the Pharmacy Act 1948 established the statutory regulation of pharmacy institutions in India. The Pharmacy Council of India (PCI) was established in 1949 under “Ministry of Health” and the first education regulations (ER) framed in 1953, which were subsequently amended in 1972, 1981 and 1991.

On the other hand, the pharmacy education has never been part of paramedical team and hence, its development has been quite unique and quite different from rest of the world. Pharmacy Council of India and Pharmacy Act were created to establish minimum qualification required to be a pharmacist. The role of pharmacist in the society was never been given its due place and did not grow due to less paying job compared to job in industry. This would have been the reason for transfer of pharmacy education from PCI to All India Council of Technical Education (AICTE) under the “Ministry of Human Resource Development”. Currently, PCI and AICTE regulate pharmacy profession and education respectively in India. Both of these regulatory bodies have been doing a regulatory function without bothering to create a permanent mechanism of updating curriculum along with development in the field.

In short, it can be said that evolution of pharmacy education has been quite confusing and developed like a vagabond. Hence, evolution of pharmacy education has been primarily due to evolution of pharmaceutical industries and has lot of impact under curriculum of “Bachelor and Master in Pharmacy” programmes. Similarly, medical education in India grew with less
focus on research and development and hence, India produced medical graduates more with clinical sense acquired through experience and less of a doctors with analytical bent of mind. Due to tight junctions at the entry point, integration of the thoughts of medical sciences, pharmaceutical sciences, nursing, engineering sciences and basic sciences have never taken place. Primarily, this resulted in isolated development of medical education without integration with other sciences including pharmaceutical. It is also true in case of pharmacy education. It may also one of the reason of pharmacy education not to be a part of healthcare system.

Currently there are over a million pharmacists in India with around 55% of them in community, 20% in hospital, 10% in industry & regulatory. And 2% in academia in India, formal pharmacy education leading to a degree began in 1937, with the introduction of a 3 year industry – oriented Bachelor of Pharmacy course. To meet the varying needs of the profession at different levels the following pharmacy programs are offered in India today: Diploma in Pharmacy (D.Pharm.), Bachelor of Pharmacy (B.Pharm.), Master of Pharmacy (M.Pharm.), practice-based Doctor of Pharmacy (Pharm.D.), and Doctor of Philosophy in Pharmacy (Ph.D.). To practice as a pharmacist in India, one needs at least a diploma in pharmacy, which is awarded after 2 years and 3 months of pharmacy studies & practical training. These diploma-trained pharmacists are currently the mainstay of pharmacy practice in India. Every year nearly 20000 D. Pharm, 30,000 B. Pharm, 6000 M.Pharm and 700 Pharm.D. students graduate in the Country. Pharmacy Council of India (PCI) is the statutory body established in 1949, for regulating pharmacy education and practice of pharmacy profession in India.

Applying principles of TQM to pharmacy education in India leads to the development of pharmacy education in India. The concept of Total Quality Management (TQM) although developed by an American was successfully implemented by Japan in their recovery from World War II. The concept of TQM is applicable to academics. Many educators believe that the concept of TQM provides guiding principles for needed educational reform. Education is a fast moving commodity in the market and is mainly business oriented which means it should give some profit to the undertaker. TQM is a philosophy for perfection and continuous improvement in services offered to someone or one’s own performance.
From the Gujarat’s Perspective

With a decade of introduction of pharmacy practice education in Gujarat, there has been a paradigm shift in the practice of pharmacy in the country. In spite of this, pharmacy practice education faces many challenges before it can transform the pharmaceutical care practice in Gujarat from a product-oriented approach to patient-oriented care. Pharmacy education in Gujarat is mainly industry oriented. The curriculum at the undergraduate level is more or less designed for preparing students towards industry rather than for patient-oriented services like hospital, clinical, and community pharmacy. To train the graduate pharmacists to provide patient-oriented services, a pharmacy practice course was started at a postgraduate level.

Pharmacy practice curriculum enters its tenth year in India since its beginning in 1997. The curriculum trains the postgraduates in rational therapeutics, patient counseling, pharmacovigilance, therapeutic drug monitoring, clinical research, and toxicology to name a few. With the efforts being on introducing the advanced clinical-based courses of the doctor of pharmacy (PharmD) degree in Gujarat, there is a need to contemplate where the profession stands at this juncture. As of today pharmacy practice is at a crossroads in Gujarat, facing numerous challenges that need to be addressed before marching further. This letter is an effort to identify deficiencies, vis-à-vis regulatory requirements, and evaluate the current status of pharmacy practice education in Gujarat.

Some key insights

(1) The profession is restricted only to the hospitals linked to a pharmacy practice school. With the completion of a decade there are few pharmacy schools providing specialization in pharmacy practice. Due to lack of job avenues, prospective postgraduates cannot opt to work as a clinical pharmacist in Gujarat hospitals as the value of clinical pharmacy services is not recognized.

(2) Regulatory framework does not recognize the need for clinical pharmacist at the national level. There are no regulatory guidelines for having qualified clinical pharmacists in an Gujarat hospital. Even if the regulations are framed in due course, a point to ponder is whether there will be any experienced pharmacists left to practice in the clinical set up as there is a mass migration of trained clinical pharmacist to pharmaceutical industry. Though clinical pharmacists have gained the confidence and acceptance of the medical fraternity, that acceptance alone will not help to overcome the shortcomings, like lack of a regulatory framework or scarce job opportunities as a clinical pharmacist. Pharmacy councils and
professional leaders need to take initiative by lobbying with relevant government authorities to create a position in the hospital set-up where a trained clinical pharmacist can fit in.

(3) Exodus of trained clinical pharmacists toward industry as there is almost no opportunity in the hospital setting. As there is no recognition of the job done by the clinical pharmacist at the regulatory level, the profession failed in to create job opportunities in hospitals for qualified clinical pharmacy postgraduates. Students are forced to either seek jobs in industries (clinical research) or continue in academics, at times teaching subjects which are out of scope of clinical pharmacy (as not many university hospitals have pharmacy practice school). The last option being to move to countries where the pharmacy profession is well recognized.

(4) The need for adding industry relevant topics in course curriculum – Dilemma of Dilution vs Evolution. There is a widening gap between the number of students graduating from pharmacy practice institutions and the number actually employed as pharmacy practitioners. There is a need to take key steps to either create a niche for clinical pharmacy professionals in the hospital or make them competent to take up other challenging jobs in the industry. There is a need for introducing specific roles that include training in pharmacogenomics, pharmacokinetic-pharmacodynamics, and medical informatics, which are job-oriented skills. Before the academic move to the next step of bringing PharmD courses, there is a need to augment the acceptability for existing courses. In an evidence-based health service, it is not just sufficient to propose new roles for clinical pharmacist without adequate evidence of benefits. Services should not only be clinically cost effective but also acceptable to patients and other health care colleagues.

This situation helps the profession to learn the difficulties in implementing patient-oriented services when the health care system does not recognize the need for clinically trained pharmacists. The experience in the past decade helped to understand the lacunae within the profession, especially on the regulatory side. This situation calls for the sustained effort by academic leaders to work with government authorities to bring suitable changes in regulation that will help the profession grow towards patient care. Working on regulatory issues with the respective government authorities is an important task for profession leaders as the regulatory environment is one of the important factors that determine the growth of health professions like pharmacy.
DISCUSSION

Although the evolution of clinical pharmacy education and practice in India is encouraging, serving such a large, mostly uneducated, exploding population poses enormous challenges. Many schools have begun including pharmacy practice topics in the bachelor of science program. Consistency of both the educational program and the practice environment must be achieved to ensure a high quality of graduates and high standards for pharmacy departments. Individual pharmacists, academic leaders, and hospital administrators must all work together to provide adequate information technology, equipment, drug information resources, and sites for training and research.

For clinical pharmacy to survive and grow in Gujarat, it must gain acceptance by the medical profession and the community as a whole; the outcome of this challenge rests with today’s pharmacy students and recent graduates.

Each pharmacy institute should operate a model pharmacy; this would not only improve the image of pharmacists in Indian society but provide an opportunity for pharmacy students to train in community practice. The minimum wages established by state governments for pharmacists working in drugstores should be properly implemented and periodically revised. Even though medicines are now dispensed in the manufacturer’s original pack wherever possible, additional labeling should include generic name and strength, dose and frequency, date of dispensing, name of patient, name and address of dispenser and pharmacy, and date after which the product in not to be used. Finally, to improve patient compliance, oral or written instructions should be provided by the pharmacist.

Although raising the minimum qualification of registered pharmacists to the B.Pharm, degree is desirable, the economics of employing pharmacists in drug stores, particularly in remote rural areas, need to be considered. Even if standards for good pharmacy practice are set in India, it will take years to meet them fully, until then, pharmacists in hospital and community setting need to take steps on their own to improve their image and protect the health of patients and the public.

CONCLUSION

To summarize, clinical pharmacy education in Gujarat after a decade is at a crossroads. The pharmacy educators are in a dilemma as to whether the course will evolve by incorporating
industry relevant components or progress into a clinically relevant course with the help of regulatory changes. This dilemma may resolve with time.

Clinical pharmacy education programs have taken root in Gujarat. Much work will be needed to expand and improve these programs to bring the benefits of clinical pharmacy practice to the great swath of Indian society.

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