

Introducing Pharm. D. Programme in India: A Need of the Day

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Abstract

This article aims to focus on need of changes in the Pharmacy education in India and proposed role of clinical Pharmacist in the healthcare system. A thorough search of literature was carried out and critically compared the recently introduced Pharm. D. programme with the same of other countries especially United States of America. An attempt was also made to identify the need of Pharm. D. programme, which is going to produce clinical Pharmacists as per the requirement of our healthcare sector. This study made an attempt to narrate the role of Pharmacist in clinical and biomedical research and also tried to focus on the scope of pharm. D. graduates across the world. This is not the right time to say some thing on Pharm. D. programme, because it is in the stage of infancy. The Pharmacy Council of India is appreciable for introducing this programme. Hence, the study critically reviewed and tried to draw attention of our regulatory bodies to take attention for successfulness of this programme. The study also identified some regulatory and upgradational suggestions to our government authorities and policy makers, which may help in successful implementation of Pharm. D. programme in India.

Key words: Pharm. D. programme, Clinical pharmacy, Healthcare sector.

INTRODUCTION

Recently, Pharmacy Council of India decided to introduce Pharm. D. course for the first time in the country from the academic year 2008-09. Though the Pharmacy profession is an ancient profession dedicated to invention and development of drugs, it has been relegated to backseat and the role of Pharmacy profession in the healthcare system has not gained required recognition. In India, Pharmacy education has initiated in the year 1932 at Banaras Hindu University by Prof. M.L.Schroff. Since those days the Pharmaceutical education has developed to great extent and slowly getting popularity as much as other professional courses.¹ But the central and state governments of India have not recognizing our profession even lot many employment opportunities are available to Pharmacy graduates especially in clinical and hospital pharmacy areas. All over the world Pharmacy education has now grown itself into a clinical profession, while in India the Pharmacy programme has concentrated more on industrial aspects. Since 1948, by producing B.Pharm. graduates, the Pharmacy profession has been quite useless in fulfilling the need of public healthcare sector. We proved that we are producing the Pharmacist as a "drug experts rather than health experts".² By

considering all such limitations associated with our profession, it is a right decision of the Pharmacy Council of India to start the Pharm. D. programme which is based on clinical pharmacy care for the fulfillment of the need of public healthcare system. This decision also gives an opportunity for a Pharmacist to involve actively in this noble health care process. In this article, an attempt was made to appreciate the decision of Pharmacy Council of India and focus on need of this programme and upgrade our self to compete with global Pharmacy world.

Need of Pharm. D. programme in India

In the last consensus, India has crossed one billion population with an exponential rise of 30-40 million population added every year. Most of the India's population is rural based, illiterates with little or no adequate basic amenities including healthcare facilities. As a result majority of the population is suffering from various health problems including mal-nutrition disorders, maternal and infant deaths, in spite of various government health programmes failed to provide net results. While in the cities, people are little educated having number of social habits such as smoking, drinking etc., and becoming slaves and burden to the society.³ The reasons for the above problem are numerous.

There are more than six hundred Pharmacy institutes in India producing over 13,000 pharmacy graduates every

year, pharmacy practice experiences are more or less non-existent with particularly no emphasis on pharmacotherapeutics and clinical pharmacy, there may be exceptions like Jadhavpur university and JSS college of pharmacy.⁴

Presently, most of the people in India when they are suffering from diseases rarely go to the doctors either because of they are very poor or too busy and often rely on local Pharmacist for medical advice. In the Indian healthcare system the doctor diagnosis and prescribe the medicines, a Pharmacist may explain how to take the medicines. The people of India are more dependent on pharmacist rather than a doctor. Along with these, some other following reasons emphasize on the need of pharmacist in health care system and focuses on the development of clinical pharmacy in India.

- 1) Poor healthcare facilities in the rural areas of the country.
- 2) Medical professionals not moving towards villages.
- 3) Increased work pressure on doctors necessitates involvement of pharmacists.
- 4) Increased awareness of medicines in patients leading to self medication habits.
- 5) Improper implementation of “rational drugs use” policy.
- 6) Improper use of antibiotics, leading to serious

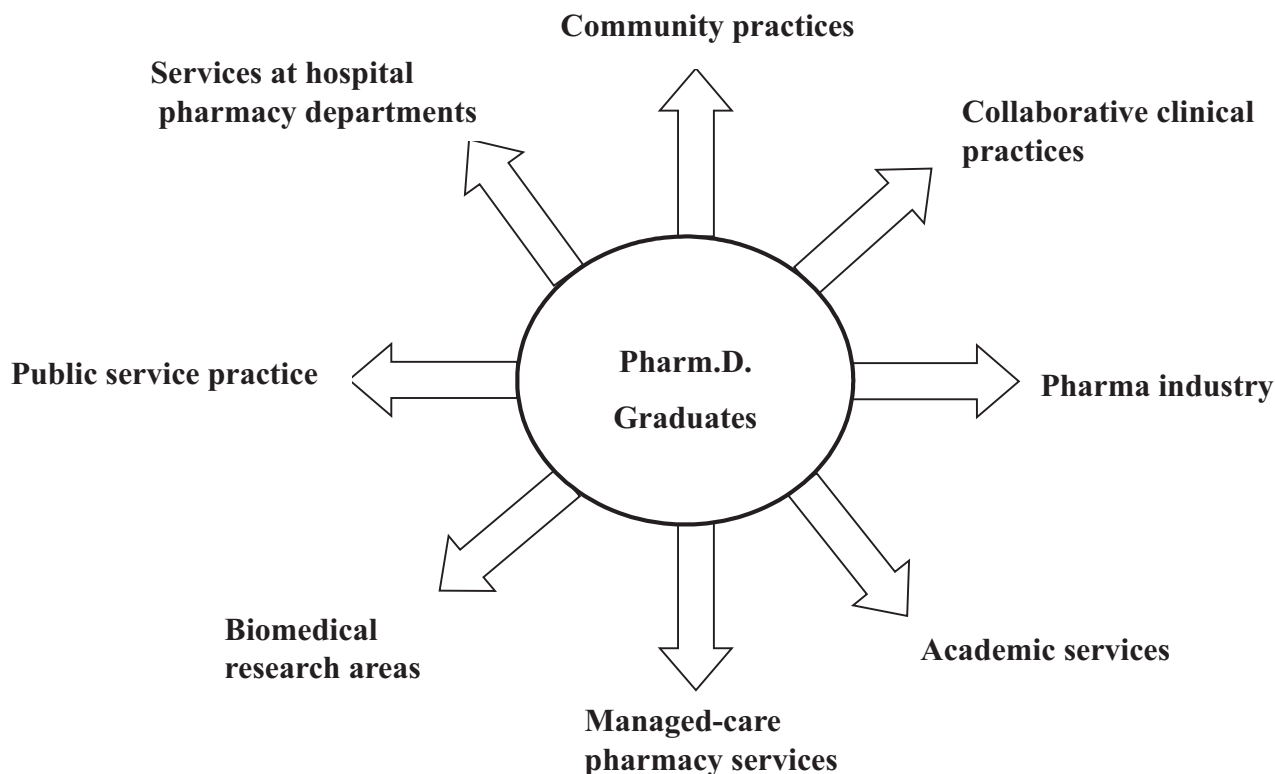
problems such as drug resistance.

- 7) Improper educational background of patients.
- 8) Unidirectional decision of medical people in healthcare system.
- 9) Social and economic factors
- 10) Grave shortage of healthcare personnel in healthcare sector.

These reasons necessitate revamping the conventional role of Pharmacists in Indian health care sector. And hence by producing the world competent Pharm. D. graduates mainly having the knowledge of clinical profession and pharmaceutical care, the above problems can be solved at measurable extent.

In the rapidly changing healthcare system across the world, the service of the Pharmacist is well accepted in patient care. The concept of practice of pharmacy care in the developed countries is well recognized the pharmacist as health care professional. The world health organization has given recommendations regarding roles and responsibilities of pharmacists in community pharmacies. But in most of the developing countries like India, involvement of Pharmacist though important and primary requirement is worse neglected. By considering all these aspects, introduction of Pharm. D. programme in India is utmost right decision of our apex body.

Figure.1: The scope for Pharm. D. graduates



The scope for Pharm. D. graduates

The Indian students choose the Pharm. D. course as their career, because they have number of opportunities across the world. These include community practices, collaborative clinical practices, services at hospital pharmacy departments, pharmaceutical industry, public service practice, academic services, managed-care pharmacy services and biomedical research areas as shown in Figure 1.

Community practices

As the Pharmacists are easily accessible to the public, they considered as healthcare professionals. They can effectively counsel the patients, give precise drug information, take pharmaceutical care, render health screening services and work for public health promotion. Hence, Pharm. D. graduates can have opportunities in community practice area, such as work at independent corporate pharmacies, neighborhood health clinics, home healthcare services and consulting for nursing homes.

Collaborative clinical practices

Always in the healthcare system, optimizing the clinical outcomes solely depends on adequate management of drug therapy. Hence the Pharm. D. graduates have intense training and broad knowledge in the clinical aspects, they can work with other healthcare professionals to select and manage the drug therapy to optimize the clinical outcomes of the specific cases.

Services at hospital pharmacy departments

As the hospital is a complex health care setup, involving the services of different healthcare professional. As a valued member of the healthcare team, hospital pharmacist can involve in various activities such as drug therapy management, health education, clinical studies, administration and drug use evaluation.

Pharmaceutical industry

Pharm.D. graduates can also have broad scope in the area of Pharma industries particularly in the manufacturing, marketing, sales, clinical research, and regulatory affairs.

Public service practice

The Pharm.D. graduates have options to have practices in federal agencies such as food and drug administration (FDA), Drug enforcement administration (DEA), Airforce, Navy, Army, public health services, and the department of veterans' affairs.

Academic services

Pharm.D. graduates can have opportunities in teaching and administrations too.

Managed-care pharmacy services

Pharmacist with Pharm.D. degree can provide clinical services and management services in a managed care settings.

Biomedical research areas

As the Pharmacists have a broad base of knowledge in pharmacology, pharmacokinetics, pharmacodynamics, pharmacogenetics, pharmacotherapy, and pharmacoeconomics along with good understanding of human metabolism, transport and elimination, The Pharm.D. graduates can significantly involve in the translational/clinical research activities. Also the Pharmacist has a multiple level knowledge related to drug development and therapeutics; they can acquire unique positions to conduct research towards achieving the goal of individualized prescription drug therapy. As the Pharm.D. graduates have the ability to envisage translational endpoints; they can work as a valuable component of the current biomedical research enterprise. The Pharm.D. graduates offer biomedical research as career field and can have perspectives to clinical research, they can have scope in introducing and integrating pharmacogenomic approaches and methods to clinical trials in various disease areas. Further, the Pharm.D. graduates can become bridge between clinical investigators. The broad knowledge of physiology and drug metabolism enables them to pursue research interests in a range of therapeutics areas.

Comparison of Indian Pharm.D. programme with other countries

If we have the glance on the overall curriculum of Indian Pharm.D. programme, it can be noticed that, the subjects and their content for first to third pharm.D. course is not much differing from our current B. Pharm course. This clearly indicates that much emphasize has neither been made to make this programme more patient focused nor clinical oriented concepts. Whereas, in other countries in contrary have given more importance and focus on subjects such as hematology, oncology, pain management, special population, renal/pulmonary diseases etc., along with the basic subjects such as pharmacokinetics, pharmacotherapy, pharmaceuticals, pharmacology and medicinal chemistry. These subjects will prepare the students for the practice of pharmacy as these are focusing on disease state management aspects. And most of the universities abroad are offering dual degrees like Pharm.D. / MBA, Pharm.D./MS and Pharm.D./Ph D. This kind of joint degree programme permits the students to study concurrently for a Pharm.D. and graduate degrees like MS and PhD in pharmaceutical sciences. In such cases, students will learn about literature evaluation, research design, career opportunities and current issues in the healthcare. In the Indian Pharm.D. programme, such subjects seem to appear after completion of three years of the course.

But we hope in future in the up-gradation process of this programme, our experts can tailor made to meet the needs of Indian health care sector. We should emphasize more on pharmaceutical care aspects rather than industry oriented principles. As there is no clear statement about global equality of this programme, it is being expressed by different people in different meanings in media. But it is yet to be clear that, whether Indian Pharm.D. graduates wishing to serve at United States of America have to appear for NAPLEX examination or it is not necessary?

Regulatory and upgradational suggestions

To start any new courses it may not take much pain but maintaining and upgrading the same to meet the global standards is the area where we Indians are lacking behind. It is quite natural to feel very hard for any new thing to begin but as time goes on, it must always become easier to manage. In this context, to strongly establish the Pharm.D. course here, there is a scope for establishment of specific task force, charged with assessing the Pharm.D. programme periodically. The task force may given powers to define the career opportunities for Pharm.D. graduates exploring the demand for Pharm.D. graduates in the situations of competencies. It also may have special powers to inspect the institutes to monitor the quality of education. This task force may be having vision and mission as that of the American association of College of pharmacy- Clinical scientist's Task force (AACCP-CSTF). This kind of attempts may bring out some collective changes and improvements in the programme, which may prepare our graduates more competent.

Better co-operation from medical faculty is an ultimate need

Clinical pharmacy promotes rational drug use and plays an important role in patient care. However, in developing countries, clinical pharmacy is promoted as an isolated single entity and not related to a stable population based pharmaceutical system. Whereas, in the western countries and United States the clinical pharmacy is well established with stable drug distribution system in hospitals and efficiently regulated by the authorities. But it is really a challenge for the developing countries like India to promote the Pharm. D programme based on clinical pharmacy in the absence or nearly absence of good governance of pharmaceuticals.

As this course is mainly hospital oriented, and Pharmacy Council of India has made it compulsory that the college wish to start Pharm.D. course must have an adjoined hospital. This necessitates the pharmacists to work with medical faculty and the better cooperation between each

other is required to run this programme, otherwise it becomes absolutely meaningless. In the Pharm.D. programme, students undergo extensive clerkship and internship training including posting in especiality units. Students should independently provide the clinical pharmacy services to the allotted wards. As per the Pharmacy Council of India curriculum, student must work six months in general medicine department and two months each in three other specialty departments. Every student shall spend half a day in the morning hours attending ward rounds on daily basis as a part of clerkship. The student shall provide patient care in cooperation with patients, prescriber and other member of inter professional healthcare team. But presently the pharmacy education in India is under the control of private educational societies which may have their own medical college hospital or may utilize government hospitals.

The medical profession in India always suffering with a superiority complex, they even not considering the doctors practicing Indian medicine system as a health care professionals, hence there is a big question mark on the better cooperation of medical faculty in successful run of pharm.D. programme. The cooperation from medical faculty also depends on our sound therapeutic principles, highly ethical and knowledgeable skills in monitoring of therapeutic outcomes, as it is already proved in JSS College of Pharmacy, where pharmacy professionals are recognizing as other healthcare professionals.

Modifications are needed in health policies of the central government and all the state governments to give respectful recognition of pharmacy profession and pharmacist as the one of inter-professional health care team. After modifying the policies, we hope that pharmacy profession will overcome the limitations associated with it and emerge stronger in function and offer the concept of health for all.

Even in United States, to consider the pharmacy profession as one of the potential health care team it took years, now the simple drug dispensing pharmacist is considering as a highly skilled clinical pharmacist. As the Pharm.D programme was introduced first in United State was done on prior arrangement and strengthening of pharmacy practice system, that was useful for their country, whereas in developing countries like India the pharmacy practice system is seldom exists and the conditions are worse where it is still fighting for

recognition with its own worth and reputation. In India, pharmacy colleges running the basic degree in pharmacy (B Pharm) are still suffering with inadequacy. Most of the colleges are absolutely failed to fulfill the requirements of apex bodies such as inadequate staff profile, lack of advanced facilities and equipments etc. The pharmacy colleges are in a debilitating state; their curricula are devised by highly non-technical personnel who have no idea about technical or clinical pharmacy practice subjects. Many of the pharmacy colleges are very busy in producing postgraduates and PhD holders obviously in bulk. To avoid such types of manipulations our apex bodies must be more cautious and required to strictly monitor the quality of Pharm. D. education to create a world class clinical pharmacist.

CONCLUSION

In the health care system, the requirement of controlling the adverse drug reactions, patient compliance, therapeutic drug monitoring, better drug dosage regimen etc are few among many, which we need to achieve. The drawbacks and limitations of our medical services to the public of our nation, can overpower by training the Pharm..D. graduates in ensuring patient compliance and acceptability. And hence the emerging field of Pharm.D. in India is the ultimate requirement and to achieve better patient compliance which ultimately make us success in achieving the concept of health for all. This may results in increased recognition and respect to the Pharmacists.

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