



Comparative Study on the Current Scenario of Clinical Pharmacy Services in India with Western Countries

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ABSTRACT

Clinical pharmacy is a health care service in which pharmacists deliver patient care that develops medication therapy and cares health, and disease prevention. The clinical pharmacy practice embraces the values of pharmaceutical care, with specialized therapeutic qualification, experience, and conclusion to confirm optimal patient outcomes. In India, the clinical pharmacy has appeared as one of the latest health care disciplines of pharmacy in the 21st century. This new profession in India extends its diversions in reporting ADRs/ADEs, providing appropriate drug information, dose calculations, patient history review, patient counselling and on the whole to a precise promising aspect of patient healthcare service. Clinical pharmacists work directly with physicians, other health professionals, and patients to confirm that the medications prescribed for patients provide the best possible health outcomes. Clinical pharmacists practice in health care locations where they have regular and continuous interactions with physicians and other health professionals, contributing to better coordination of care. When compared to western countries, India is underdeveloped in the utilization of clinical pharmacists. India as the second largest population country needs to focus more on improving its health care system. The Indian government should take a step forward to start clinical pharmacist posts in every hospital-like western countries. The cooperative attitude of the physicians in the western countries towards clinical pharmacists should be inculcated by Indian health care professionals. The objective of the study is to understand the barriers to the development of clinical pharmacy services in India.

Keywords: Clinical pharmacy, pharmacy practice, India, Pharm D, current scenario, western countries.

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INTRODUCTION

Clinical pharmacy is defined as an extension of pharmacy which deals with the science and practice of rational medication habit. Clinical pharmacy is a health care service in which pharmacists deliver patient care that develops medication therapy and cares health, and disease prevention. The clinical pharmacy practice embraces the values of pharmaceutical care, with specialized therapeutic qualification, experience, and conclusion to confirm optimal patient outcomes. As a health care program, clinical pharmacy also should contribute to the generation of new knowledge that advances health and quality of life. The services of Clinical pharmacy are not restricted to certain areas but spread over to all medical fields such as cardiology, infectious, ambulatory care, neurology, nephrology, oncology, internal medicine, etc. It also includes out-patient and in-patient services.¹

In India, the clinical pharmacy has appeared as one of the latest health care disciplines of pharmacy in the 21st

century. Pharm D course is the eligibility degree to become a clinical pharmacist. The inclusion of clinical pharmacists in medical rounds will surely support physicians in making a clear decision and optimizing pharmacotherapy. This new profession in India extends its diversions in reporting ADRs/ADEs, providing appropriate drug information, dose calculations, patient history review, patient counselling and on the whole to a precise promising aspect of patient healthcare service.²

Clinical pharmacists work directly with physicians, other health professionals, and patients to confirm that the medications prescribed for patients provide the best possible health outcomes. Clinical pharmacists practise in health care locations where they have regular and continuous interactions with physicians and other health professionals, contributing to better coordination of care. Clinical pharmacists are qualified and expertise in many patient care environments, including medical centres, clinics, and various other health care settings. Clinical pharmacists are permitted to perform a full range of medication decision-making functions in collaboration with physicians as part of the health care team. These privileges are granted based on the clinical pharmacist's knowledge of medication therapy and clinical experience. Clinical pharmacists practise in many health care environments, including hospitals, outpatient clinics, emergency departments, ambulatory care, community pharmacies, community-based clinics, nursing homes, and managed care organizations.³



ROLES OF A CLINICAL PHARMACIST IN HEALTH CARE SECTOR

Drug-related:

If the drug is not added to the hospital formulary: Drug evaluation and evidence-based study should be done by the clinical pharmacists on the particular drug and the same should be presented to the P&T Committee.

Before prescribing the medications: Clinical pharmacists are responsible to provide information about hospital formulary, possible alternatives, drug information, adverse reactions, side effects, drug-related policies, drug prices and availability

On prescribing the medications: Prescription monitoring is the major duty of a Clinical pharmacist which includes services such as reviewing the prescribed drugs i.e appropriate drug choice for a specific indication, dosage, frequency, duration, dose adjustment, avoiding duplicate therapy, finding the missing drug for untreated indication, consider the history of drug allergy, medical and medication history, evaluate and manage adverse drug reactions, and possible drug interactions.

After prescribing the medications: Clinical pharmacists scheme pharmaceutical care plan, identify complications, establish desired goals, deliver patient counselling, monitor pharmacokinetics and therapeutic drug level, state adverse drug reaction (ADRs), evaluate achieved treatment goals, and required drug information to health care professionals.

Patient-related:

Take patient history: Clinical pharmacist is responsible for reporting patient medical and medication history and also the history of drug allergy thereby increasing the accuracy of the treatment plan.

Medication reconciliation: Finding medication errors and planning to reduce the treatment problem is also the duty of a clinical pharmacist.

Patient counselling & education: Counselling the patients is also an important step to make the desired outcome come true. A clinical pharmacist is assigned to educate the patients and make them understand the importance of prescribed medications, proper medication intake techniques, appropriate frequency and also the diet plan.

Provide educational materials: In the account of educating the patients' clinical pharmacists are also responsible to provide educational materials which include complete detail about the diseases, preventive measures, drug therapy, side effects, precautions, home remedies, diet plans, exercise techniques, lifestyle modifications etc

Patient follow-up: It is an essential and last step carried out by the clinical pharmacists to complete the therapy and improve the quality of life.⁴

SCOPE OF CLINICAL PHARMACY IN CANADA

In Canada, clinical pharmacists are expanding roles in health care sectors and are increasingly being recognized as the medication management experts of the health care group. Some provinces of Canada, like Alberta, are affluent in the scope of pharmacy practice.

According to Canadian pharmacists association, the scope of the Clinical Pharmacists are listed below:

- Prescribe drugs in collaborative practice settings
- Independently initiate therapy for minor ailments/conditions, smoking/tobacco cessation
- Handle independently in an emergency
- Make appropriate therapeutic substitutions
- Change drug dosage, formulation, a regimen in collaboration with physicians.
- Renew or extend prescription for the continuity of care
- Inject any drug or vaccines
- Order and interpret lab tests.⁵

SCOPE OF CLINICAL PHARMACY IN USA

In the united states of America, Clinical pharmacists are licensed professionals with progressive education and training who practice in a wide range of patient care settings.

According to American College of Clinical Pharmacy,

- They are the members of the health care team to ensure high-quality, patient-centred care to confirm that the patients receive the best possible results from the prescribed medications.
- Clinical pharmacists assess medication-related needs, evaluate the therapy, organise the plans of care, and provide follow-up evaluation
- Medication monitoring in collaboration with the health care team.
- Clinical pharmacists understand diagnostic and laboratory tests, recognize the most right drug and non-drug therapies.
- Counsel the patients and caregivers about medications and how to use them.
- They also work as health care researchers, university and college faculty, drug information specialists, organizational leaders, consultants, and authors of books and articles on pharmacology and medication therapy.⁶

SCOPE OF CLINICAL PHARMACY IN EUROPIAN COUNTRIES

The term “clinical pharmacy” describes the responsibilities of pharmacists whose primary job is to interact with the health care team, interview and assess patients, make



specific therapeutic suggestions, monitor patient responses, drug therapy outcomes and provide drug information. The importance, necessity and acceptance of clinical pharmacy services were first documented in the 1970s and 1980s

- Clinical pharmacists mainly concentrate on patient-oriented services rather than product-oriented services.
- In some European countries, the pharmacy profession has progressed to the point at which patient-focused practice is no longer the choice but the rule for most clinical pharmacists.
- Clinical pharmacy is practiced exclusively in in-patient settings and hospitals, where access to patient data, information and the medical team is available.
- Medical records of the patients in most of the hospitals include sections for medication orders and clinical pharmacy progress notes on pharmacokinetic dosing and other relevant therapeutic comments and recommendations from the clinical pharmacists.
- Clinical pharmacists are expected with expert knowledge of therapeutics, a good understanding of diseases and a good hold in pharmaceutical products.
- Besides, clinical pharmacy requires strong communication skills with solid knowledge of the medical terminology, drug monitoring skills, medicines information, dose adjustment techniques, therapeutic planning skills and the ability to understand and interpret physical and laboratory findings.
- Therapeutic drug monitoring is a special skill and service provided by clinical pharmacists.
- Clinical pharmacists are often active members of the medical team and complement ward rounds thereby contribute to bedside therapeutic discussions and optimizing therapeutic plans.
- The influence of clinical pharmacy services has been well documented in in-patient settings, and to a lesser extent in ambulatory and community settings.⁷

SCOPE OF CLINICAL PHARMACY IN INDIA

In India, M Pharm in pharmacy practice was introduced in 1996 and Pharm D course was introduced in 2008 by the Pharmacy Council of India by considering the need for clinical pharmacy services.

Pharm D internship activities in India are listed below:

- To give patient care in collaboration with physicians, prescribers, and other health care professionals of the team based on therapeutic guidelines, evidence-based data, and relevant legal, ethical, economic, social-cultural aspects that may impact therapeutic outcomes.

- To manage and use resources of the health care system, in cooperation with patients, prescribers, and other health care professionals to promote health.
- To provide and design safe, accurate, and appropriate medication distribution; and to improve therapeutic outcomes of medication use.
- To promote health improvement, quality of life, and disease prevention in co-operation with patients, communities, risk population, and other members of an interprofessional team of health care providers.
- To prepare a pharmaceutical care plan for individual patients and report adverse drug reactions.
- To analyze the drug chart and assist physicians in avoiding drug interactions.
- To provide appropriate dose-related drug information and help the physician to choose the right drug
- To provide precaution methods and promote health care services to the community.
- To develop management qualities to work effectively as a member of the health care team
- To communicate effectively with patients and the community.⁸

Current scenario of pharm D students in India

Lack of clinical pharmacist posts: So far PCI has approved 233 colleges providing Pharm D programme which means approximately more than 9000 pharm D graduates are emerging every year. Only a few private hospitals are recently started offering job posts as clinical pharmacists with a low salary. Lack of clinical pharmacist post in the hospitals is the major barrier in India for the development of clinical pharmacy. This drives them to work in non-conventional fields like medical writing, medical coding, running pharmacies instead of practising their profession.

Nonexistence of government posts: Absence of clinical pharmacy post in the government hospitals is the insult to the Pharm D course in India. Government has turned its back to the organizations like Doctor of Pharmacy Association (DPA)

Underutilization: Though Pharm D graduates are expertise with therapeutic knowledge and capable of preparing a treatment plan, they are not utilised according to their need. Physicians are backsliding to enquiry about the drug information with clinical pharmacists as they are unaware of the capability of a Pharm D student.

Lack of cooperation by the physicians: Physicians are unaware of Pharm D degree and even though they understand the importance of clinical pharmacists they hide it inside because of the fear that the society may share their current value with clinical pharmacists. Lack of



recognition from the physicians is the major problems clinical pharmacists are facing today.⁹

CONCLUSION

Clinical pharmacy is one of the important fields in improving global health care settings. Most of the prescription errors and decreased knowledge of medications can be avoided by the utilization of clinical pharmacists. In collaboration with other health care professionals, clinical pharmacists play an important role in improving the quality of life. In the declining era of global health, society is in the need of a health care team with a clinical pharmacist.

When compared to western countries, India is underdeveloped in the utilization of clinical pharmacists. India as the second largest population country needs to focus more on improving its health care system. The Indian government should take a step forward to start clinical pharmacist posts in every hospital-like western countries. The cooperative attitude of the physicians in the western countries towards clinical pharmacists should be inculcated by Indian health care professionals.

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