



Implementation and Establishment of Pharmaceutical Care service Center in Teaching Hospital and 150-Bedded Hospital- A Review

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ABSTRACT

Pharmaceutical care began in developed countries like United States and Canada, and has rapidly extended in many other countries. Although there are different trends in different part of the countries but they all have same objective to achieve definite outcome that improve a patient's quality of life. With these objectives, a pharmaceutical care process has to be adopted and followed step-by-step, to identify potential medication-related problems. Along with, pharmacists have to work together with patients or caretaker and prescribers to accomplish a pharmaceutical care plan to obtain desire therapeutic goal and outcome of the diseases. The pharmaceutical care service with its dedication to support clinical service and research activities in the hospital will further improve the quality of drug therapy, provide better patient health care and utilization of drugs this will help reducing morbidity and mortality in the hospital. To success the pharmaceutical care process, various steps should be documented properly and required communication skill. The community pharmacists, hospital pharmacists and consultant pharmacists play an important role in implementation of pharmaceutical care programs. The government bodies should consider Pharmaceutical care service as a primary element of University, teaching hospital, 150-bedded hospital, graduates and postgraduate studies.

Keywords: Pharmaceutical Care, Medication-related Problems, Pharmacist.

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INTRODUCTION

Pharmaceutical care is opportunity for pharmacist by accepting its social responsibility to minimize preventable medication-related morbidity and mortality¹ and Mikeal *et al*² defined pharmaceutical care evolved from a team. Brodie *et al*³ evolved this concept optimum drug therapy needs for a patient, not only of the required drugs but also of the services needed for safe and effective therapy. Pharmaceutical profession were entered into a new era by publication in 1990, of an article in which Hepler and Strand defined pharmaceutical care as “the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient’s quality of life”¹. The patient care process in pharmaceutical care includes development of therapeutic relationship, assessment and identification of medication-related problems, development of care plan, evaluation and continuous follow-up.

Pharmaceutical Care

Although pharmaceutical care is widely acceptable term in healthcare system, similar meaning and practices but different names, such as clinical pharmacy services, cognitive services, medication management and medication review.⁴ Pharmaceutical care concept based on the philosophy and care practice, it must be pointed towards the pharmacists’ responsible involvement in patients’ health outcomes. The idea of this philosophy of practice was more oriented towards the “health care provider” instead of “to the care of the patient”. The health care provider was involved into medicines management and patients’ care in the case of pharmaceutical care. Pharmacists have added into pharmaceutical care for societal stand and the patient’s perspective into medicines management.⁵

Developing the Pharmaceutical Care Process

The pharmaceutical care process consists of a number of components. It starts with social need; it continues with a patient-oriented approach to gathering this need and ends with a description of the prescriber’s specific responsibilities. Patient-oriented approach means caring of and for another way by development and maintenance of a therapeutic relationship.⁶ Social need is very important component in pharmaceutical care because in most cases the failures of pharmacotherapy due to incorrect use of drugs by patients. Failures of therapeutic objective or intended outcomes are not obtained in 50% of the cases where prescription and dispensation are correct. Hence it is an economic burden on the society.^{7, 8, 9} Drug intervention can be considered to be a pharmaceutical care intervention if it includes consultation between a patient and pharmacist, development of a therapy care-plan and pharmacotherapy follow-up. The elementary

purpose of the drug intervention is to identify and resolve medication-related problems.¹⁰ To obtain this goal, the pharmacist must go for series of interviews with patient or caretaker to gain the necessary information about the disease and treatment of patient. Standardize documentation process for improving patient outcomes must be prepared which have four main areas:¹¹

- 1) Demographic details,
- 2) Medication list,
- 3) Health related problems list and
- 4) Care plan

Offering the service

Most of the patients/ caretaker are not known about the pharmaceutical care services. Although pharmacist-managed department available in many practice settings, like hospital-based outpatient departments, private physicians offices and pharmacies. Even more, many people in India are not aware of pharmacist offering this pharmaceutical care service. Patient's awareness of that care service is recommendation for beginning of this pharmaceutical care process to improve safety and efficacy of medications. It is necessary for the patient to receiving these care services which provide all the potential benefits, making sure medications are working appropriately to improve the patient's health, minimizing medication-related problems, such as drug interactions and adverse drug effects.¹² Dader Method of Drug therapy follow-up (DTF) suggests the necessity that the pharmacist provide pharmaceutical care service during his/her regular work set and personal contact with patient or caretaker and identify those who may really want drug therapy follow-up. Dader Method suggests three main characteristics and goals that patient must know:¹³

- Appropriate patient's pharmacotherapy
- Patient and pharmacist must cooperate and look for common consent goals
- Pharmacist is not a physician substitute but a collaborator, with the same objectives about patient's needs.

Pharmacist-Patient Interview

The second step in pharmaceutical care service should be an interview by the pharmacist to know about the patient's health problems and medication adherence. The pharmacist has to achieve the faith of the patient and acquire a compromise with him for working together as a team with the aim to obtaining the expected therapeutic outcomes. Next important role, the pharmacist conducts regular follow-up of all medication that the patient has taken or is still

taking.¹⁴ The pharmacist must thoroughly study the complete medication chart which medications the patient is prescribing/ taking, how and how long he has to do so. Furthermore, the pharmacist has to experience which outcomes are expected for each health related problem. By this way pharmacist will be able to report parameters for the effectiveness of pharmacological therapy and identify the potential medication-related problems. Before pharmacist can start the interview, they need to install a therapeutic relationship with patients. Pharmacists need to be active listeners and show sympathy for patients. Pharmacist then needs to take proper interview of the patient and collect all relevant data to assess patient medication therapy and current health status¹⁵. Therefore, this interview is the first step of the pharmaceutical care service for development of a relationship between pharmacist and patient. The main aim of this relationship is to collect the quality and quantity of patient information.¹⁶ Drug therapy follow-up implies a continuous pharmacist-patient relationship which is based on the mutual understanding, responsibility and reliance in order to achieve the therapeutic outcomes.¹⁷

Study of patient situation: Drug therapy problems detection

Once the interview over with the patient, the pharmacist has to assess the possibility of therapeutic failure and even detect medication-related problems and must be prevented. Pharmacists have to keep in mind that pharmaceutical care services involve three major functions: (1) identifying potential and actual drug-related problems (DRP), (2) resolving actual drug-related problems, and (3) preventing potential drug-related problems¹. In general, problems related to the use of approved drugs can be summarized with the term “drug-related problems” (DRPs). There is not uniform definition and classification of DRPs in most studies.^{18, 19, 20} DRPs can be divided into intrinsic and extrinsic toxicity. Intrinsic toxicity is caused by the interaction of the pharmaceutical, chemical and/or pharmacological characteristics of the drug itself and the human bio-system. Extrinsic toxicity refers to the problems caused by the handling of the drug either by the healthcare professional or by the patient. The drug is not used in the appropriate way: a drug-related problem may occur. Drug-related problem is defined as any preventable event that may lead to incorrect use of drug or patient harm while the drug is in the control of the any healthcare professional, patient²¹. The development of drug information center (DIC) is recommended for better and affective pharmaceutical care.²² A drug information center is provided the drug related information to the community and healthcare professionals. Hence it is necessary to add the DIC in pharmaceutical care practice for evaluating pharmacists providing this service. The best available drug information provided by DIC is very important for health care professionals for taking valuable decision on the patient pharmacotherapy. According to

Byrd²³, the pharmaceutical care model proposes that pharmacists in clinical pharmacy settings could be well educated and trained to provide health and drug related information to other healthcare professionals.

Development of care plan

As early as possible health problems and drug chart of the patient have been studied, it is necessary to establish care plan to prevent and resolve any possible drug-related problems in the patient.⁷ Pharmacists should prepare, implement and monitor a care plan to achieve optimal therapeutic objective by solving as many drug-related problem as possible. The aim of drug intervention collaboration with prescriber's to improve the outcomes of the patient when a change in the appropriate drug therapy is necessary. In this way pharmacist monitor if the plan has succeeded or not, and even important to do a continuous follow-up, which evaluates if the drug-related problems have been resolved and reached to the therapeutic objectives. The strategies of drug intervention will depend on the individual case of the each patient. The pharmacist priority in the drug intervention should depend on the seriousness of the drug-related problems and on the effort in the solving of drug-related problems. The pharmacists should design, define, develop and implement the evidence-based drug skills, in making health-care related decisions.^{24, 25} The pharmaceutical care service main focuses on the patient which is the center of inter professional relationship with other healthcare.

CONCLUSION

To get success in this task, it is primarily that the pharmacist changes the mode of understanding and practice in clinical pharmacy and updates their knowledge periodically. Clinical knowledge and clinical setting has an appropriate vision of practice, commitment and an organizational body within which they provide service and practice.

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