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Impact of Pharmacological and Non-Pharmacological Counselling on Patients by a Clinical Pharmacist - A Narrative Review



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ABSTRACT

The activities of pharmacists have evolved over a few decades from the compounding, dispensing of medication to the new approach of patient counseling. Clinical pharmacists can also lead to patient satisfaction, improving patient's quality of life to a larger extent, collaboration with physicians and other specialists in having improved outcomes. The pharmacist can counsel about long-term medications used by the patients and their issues like indication, adverse events. They are responsible for solving the same if discovered. Pharmacists can work on Therapeutic counseling by tailoring the medication with the patient's lifestyle, medication calendars on their drug use can be helpful, making use of various compliance tools, and for example, the prescription bottle itself serves as a counseling aid. Clinical pharmacists can work directly or in collaboration in the selection of drug regimens. It was found that patients were comfortable with having either form of written and verbal counseling interventions. They can make understand patients and their caregivers with various modes of information like PILS, information leaflets for better interpretation about the dose, duration, time, and precautions to be taken in a rational drug use pattern.

INTRODUCTION:

Pharmacy practice activity classification evolved in 1998 to portray pharmacist activities such as Patient interaction, interviewing of the patient, dispensing patient-specific information to patients or caregivers, educating the patient regarding pharmacologic and nonpharmacologic aspects, providing verbal as well as written information for better interpretation. The activities of pharmacists have evolved over a few decades from the compounding, dispensing of medication to the new approach of patient counseling.¹ As per the physician's point of view, the appropriate areas of patient-related pharmacist role can include monitoring the therapy, supporting physicians in the coordination of therapy, providing patients with therapy-related information. As the physicians serve in the diagnosis of a disease condition, so is the role of pharmacists in therapeutic and nontherapeutic monitoring of the patient and their assistance. The positive approach was identified by the physicians towards pharmacists in monitoring and follow up of drug use and their concerned problems, collaborating with the health care team in improving the disease status of patients.² The benefits of Patient counseling contributes well in the case of a vulnerable population such as geriatrics and pediatrics. Pharmacists make their role in monitoring the drug administration. Pharmacists can also reduce the re-admission of patients and also reduce the cost of unnecessary drugs. Pharmacists can also document the medication-related issues, uncommon adverse drug events, which in turn can serve the health care team with new updates through various sources such as printed, electronic media .³

Future aspects of patient counseling by clinical pharmacists can include identifying patient-specific hindrance to medications and their solution. Clinical pharmacists can also lead to patient satisfaction, improving patient's quality of life to a larger extent, collaboration with physicians and other specialists in having improved outcomes. Having a check on admission and discharge medication reconciliation, the patient's medical and medication history with various allergy information can be a stronghold in making the treatment efficient .⁴ Developing countries have efficient pharmacy workforce, reimbursement of provision and care, standardized pharmaceutical care activities.⁵

METHODOLOGY:

This review includes data related to patient counseling in various Countries. Analyzing the effect of patient counseling in a patient's life through the endorsement of various methods improving and promoting the quality of the healthcare system. The information was collected

through a computerized search from a research article and various guidelines related to Patient counseling using various journal sites and health care organizations.

Impact of Patient Counselling

Patient counseling is one of the most important responsibilities of a pharmacist. It is a process of discussing, understanding and explaining all the information related to medicine and its dosage regimen. Patient counseling provides moral and motivational advantages to the patients. Non-pharmacological patient counseling plays a key role in the betterment of a patient's condition by implying a few methods and self-using procedures like lifestyle modification and hygiene practices.⁶ Pharmacists can counsel about long-term medications used by the patients and their issues like indication, adverse events. They are responsible for solving the same if discovered. Pharmacists can work on Therapeutic counseling by tailoring the medication with the patient's lifestyle, medication calendars on their drug use can be helpful, making use of various compliance tools, and for example, the prescription bottle itself serves as a counseling aid. The pharmacist can assess laboratory indicators when the patient's condition is not improving with the prescribed medications. In the case of special populations like Paediatric and geriatrics, the concerned caregivers can be counseled regarding the administration techniques, dosage regimen, and the source of problems can be asked and resolved. Cognitive-behavioral therapy, Biofeedback, Relaxation techniques, Family psychotherapy, Occupational therapy all activities are a part of patient counseling along with Physical activity, Weight reduction, Smoking cessation, Stress management.⁷

Methods and Steps of Patient Counselling

There are several approaches to patient counseling, the basic or universally accepted method consist of the following steps.

Step 1: Preparing for the counseling- It includes selecting a suitable place, scheduling appropriate time; information to be conveyed should be well organized, briefing the counseling points, and planning strategy for counseling.

Step 2: Opening the counseling session- The pharmacist introduces himself/herself to the patient asking for their consent for patient counseling. Pharmacists should avoid enquiring embarrassingly or being curious because it can affect the patient's state of emotion.

Step 3: Counselling Content-It is the heart of the Patient counseling session. Pharmacists are required to provide information about the drug, dosage regimen, side effects, Adverse effects, possible drug-drug or drug-food interaction, minimum duration required to achieve the pharmacologic effect, giving information on what to do if a dose is missed.

Step 4: Closing the session-Pharmacists enroll and make sure that the patient is well understood about the counseling session. Asking if they can recollect about the same are done. It includes clearing the patient's doubts about the session. If required, pharmacists provide their contact details to encourage the patient regarding doubts about the same.

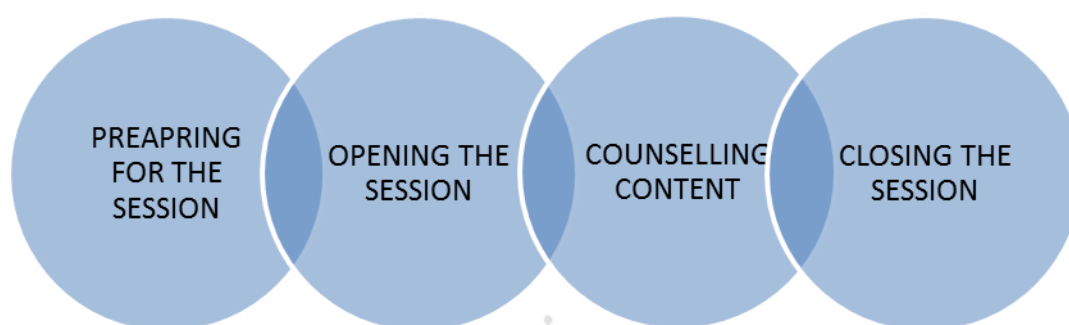


Figure No. 1: Steps of Patient Counselling

Essential Requirements for Patient Counselling: For effective Patient Counselling, the pharmacist should be familiar with the pathophysiology and therapeutics of the patient's complaints. Detailed knowledge of the clinical pharmacology of the drug is required for the success of patient counseling. The pharmacist must have good communication skills to gain the patient's confidence and to motivate him/her to adhere to the recommended drug regimen.

Outcomes of Patient Counselling: Since the patient becomes informed and understood the importance of the treatment, the incidence of medication errors, adverse effects, and unnecessary treatment costs are reduced. Effective patient counseling establishes a strong professional relationship between the patient and pharmacist. Patients understand their illness and the role of medication in its treatment. Develops ability in patients to adhere to the treatment regimen i.e. improved medication adherence. Prepare the patient to deal with any side effects and drug interaction that might be developed during drug therapy.

Patient Counselling: It refers to the process of providing vital information, advice, and assistance to help you (Patient) with your medications and to ensure you take them properly. This also includes important information about the patient's illness and lifestyle Patient

counseling provides verbal or written information and guidance to the patient about the Direction to use medication, Precautions, Safety, and Storage of medicines.

Role of pharmacist in patient counseling: Due to the heavy patient load, most of the registered medical practitioners have less time for patient counseling and therefore many patients do not get enough information about their medication. Lack of information may result in inappropriate use of the drug that may result in therapeutic failure, adverse effects, additional treatment cost, and sometimes even hospitalization. Therefore, community pharmacists and hospital pharmacists can be trained for this role which helps to reduce or solve many drug use-related problems and their consequences.⁸

Role of a Clinical Pharmacist in Patient Counselling

Senior trained pharmacist specialists aided in the counseling process, lasting from about 10-15 minutes using specialized format and counseling protocols and used various validated questionnaires to understand patients' previous medication and medical history. These were reported as quality, easy to understand counseling means. It was done in private spaces in the hospital to make the patient feel comfortable, to reveal their problems related to medications and lifestyle modifications. Later the patients were encouraged to come up with clarifications about the same. Pharmacological counseling for the side effects and need of being alarmed about the drugs were informed before administration and that not to stop it without the consent. It was found that patients were comfortable with having either form of written and verbal counseling interventions.⁹

Pharmacists can perform their counseling through CAT by using an emotional expression such as giving assurance that patients can manage to take their medications by themselves, using better interpretation skills such as using simplified language. Hospital pharmacists can build a strong relationship with the patients by a rapport to dispense better patient care, to make better healthcare decisions both in pharmacologic and non-pharmacologic means and to give their best participation assisting patients in steering health care system through their gestures, non-verbal and verbal means of communication. By this, pharmacists are named as having engaged to treat patients efficiently.¹⁰

Pharmacist's intervention of patient-related problems like Adverse drug prevented its re-occurrence by following a stepwise procedure including teach-back at discharge, post-discharge communication communicated with community pharmacist, healthcare nurse

identifying reasons for medication changes. This is followed by post-discharge medication changes by community pharmacists to prevent the hampering of medical surveillance and home visit within five days post-discharge by community pharmacies.¹¹

Pharmacists can work on Therapeutic counseling by tailoring the medication with the patient's lifestyle, medication calendars on their drug use can be helpful, making use of various compliance tools, and for example, the prescription bottle itself serves as a counseling aid. The pharmacist can assess laboratory indicators when the patient's condition is not improving with the prescribed medications.¹²

Role and impact of Patient counseling of cancer patients

Anticancer drugs have to be monitored with high caution because of their susceptibility to having large-scale drug-drug interactions, high toxicity levels, and narrow therapeutic index. Hence Pharmacists can provide enhanced treatment regimens with patient-related factors. Antineoplastic drug's main side effect of nausea and vomiting can be counseled to the patient that it is the sign of the effectiveness of the medication. Clinical pharmacist intervention can be made effective with proper follow of patient's condition and their disease status and counseling and management regarding all possible adverse events. As Cancer can cause economic decline with poor quality of life and burden in society, the consequences can be better addressed by Pharmacists. Pharmacist professionals are one among few Healthcare teams who fully comprehend the Economic and pharmacologic criteria and participates and understand in making the life of a cancer patient better. The clinical pharmacist can work directly or in collaboration in the selection of drug regimens. Pharmacists can work in assisting with symptom intensity with anticancer medications in inpatient as well as outpatient patients in multidisciplinary chemotherapy clinics.¹³

Pharmacists can tailor pharmaceutical care plans and adhere to them in cancer therapy since many beliefs are played about anticancer medications. Pharmacists with oncology experience can lead patients in decreasing concerns related to the disease and the importance of the need for Antineoplastic drugs.¹⁴

Management of Hypertension- Clinical pharmacist role

Hypertension responds to both lifestyle modification and as well as pharmacotherapy. When counseling a hypertensive patient, requires insight, creativity and ingenuity. Essential counseling of hypertension covers 3 essential themes: improving health status with

adherence, providing knowledge on adverse effects and contraindications, and encouraging health behaviours. Pharmacists start patient counseling by asking patients on what physicians had suggested to them previously, saving time and recognizing information deficits quickly. Patient adherence is low in asymptomatic conditions. Patients are counseled about the importance to control BP and to make sure to make a list on risks of medication non-adherence. Patients are informed not to miss a dose, repeating the name of the drug so that patients become familiar with it. Ask specific question such as "This medication have to be take twice; when in your day do you think you would take it?" can be done by pharmacists in the counseling session. Warn patients about drug, food, or OTC product interactions and other contraindications can be helpful.¹⁵

Impact of Patient counseling in the management of Diabetic Mellitus

Over the past few years, the prevalence of diabetes in the world has grown drastically. Patients with diabetes mellitus develop complications because of poor awareness about the disease and inadequate glycaemic control. Education of the patient is the most effective way to decrease diabetes complications. Various validated questionnaires can be given to diabetic patients and final follow-up to assess awareness regarding management can be done. The levels of Glucose and lipid levels were evaluated at baseline and final follow-up in both the groups. The levels of PPBG (postprandial blood glucose) decreased significantly in the test group. At the end of the study, KAP questionnaire score of test group patients improved significantly, but there is no significant changes observed in control group patients. Pharmacist should also be keen in counselling patients about missed insulin and other hyperglycaemic drugs and strictly told not to take double dose. The after effects of double dose can be explained as more life-threatening conditions like hypoglycemia can happen. They are also told to have a sugar candy along with them. Pharmacists are eligible to monitor the level of glucose and about how to control the glucose levels, including patient specific plan for maintaining the level of glucose. Pharmacist can also assist patients by selecting the appropriate management strategy. Pharmacists can also counsel on an appropriate diet and exercise routine for enhancing the management plan. This can be appropriate in those areas where the concerned health professionals are out of reach.¹⁶

Psychiatric patients- Clinical pharmacist patient counselling aid

Pharmacists can help mentally disabled people by communicating the stigma, which causes it. Understanding in deep about their challenges and giving them right skills and beliefs can help people live healthier and stress free. Pharmacists provide professional and culturally sensitive life of psychiatric patients ranging from educating to consulting to providing. Psychiatric illness needs long time treatment regimen, and hence the adherence to the same can be difficult because the onset of new occurrence of mental episodes can worsen it causing drug resistant condition. It can lead to self injurious behavior degrading the quality of one's life. Medication counselling can be a cornerstone in case of psychiatric illness provided to patients and their caregivers. It is found that pharmacist interim prescribing can be found to be effective in treating patients with by increasing documentation and follow up about their medication adherence and their emotional state. Pharmacists are regarded as primary health care providers and have also recognized their esteem in Human resource development policy in mental disorders. Various programs are also addressed for Pharmacist intervention and counselling in assisting with adverse Events of Psychiatric drugs. Pharmacists can work in collaboration with Physicians to give better patient care of patients with psychosocial needs in Psychiatric clinics.¹⁷

Cirrhosis- Role of Clinical pharmacist

Lifestyle modification cannot treat cirrhosis but can help to stop the progression of the disease, decrease the severity of symptoms, and help reduce complications.

- Avoid consumption of alcohol.
 - Eat a balanced and healthy diet.
1. Avoid seafood, raw fish, and shellfish
 2. Depending upon the health condition, patient may either required to increase or decrease protein intake.
 3. Take vitamin or other supplements recommended by the doctor.
 4. The patient required to follow a low salt diet to reduce fluid retention.
- Keep patient feet always up to reduce swelling.

An appropriate diet may help liver tissues regenerate and can decrease the severity of symptoms. In the beginning stage, patient may be advised to take more calories and protein. Sufficient amounts of amino acids from proteins and other nutrients are necessary to restore liver tissue. Sometimes, a salt-restricted diet may be necessary. Salt contributes to fluid retention. Stopping the consumption of salt can help to improve fluid distension in the abdomen and legs. Patients are counselled regarding the importance of lifestyle modification in cirrhosis, management by understanding the severity and stage of the disease and making them known about the extreme stage of cirrhosis.¹⁸

Gastroenteritis- The role of Clinical pharmacist

Pharmacists are trained to counsel on various non-pharmacological aspects of gastroenteritis like alcohol or caffeine intake. They also make understand regarding drugs which irritate stomach like Aspirin or ibuprofen and not to consume any medication unless suggested by physician. Since the patients are highly affected by diarrhoea and vomiting, they are told to have Oral rehydration salts frequently as per the episodes, to prevent electrolyte loss. Antibiotics given to eradicate the causal organism taken as per the dosage regimen are also prescribed in cases where causative organisms are detected. Antibiotics are advised to be taken whole and not chewed or crushed. Patients are made understood about the resistance issues associated with poor adherence to the dosage regimen. It should be taken concerning the course as prescribed.

The non-pharmacological approach in gastroenteritis includes drinking clear liquids, having soft foods when needed to. Clinical pharmacists can counsel patients regarding avoidance of foods such as dairy products, citrus products, caffeine and alcohol. Patients are advised to have clear liquid diets like apple juice. Pharmacists are emphasized to have foods, which are easy to digest, and those, which upset, are to be avoided.

DISCUSSION AND CONCLUSION

Results of various articles, guidelines of various health care revealed that Patient counseling serves as an important tool for better patient care. It is proven that patient counseling establishes and adds in barrier-free communication with a clinical pharmacist, hence promoting adherence to the treatment in an efficient manner.

Clinical pharmacists work in close collaboration with other health care specialists about various issues addressed like adverse drug reactions, side effects, drug interactions which can

make for more caution. Clinical pharmacists can aid physicians in tailoring treatment regimens for improved outcomes through their therapeutic and clinical knowledge. Counseling by clinical pharmacists can compensate for those missed and updated medication and non-medication information provided by physicians. The clinical pharmacist can demonstrate the administration techniques for diseases involving technical administration like nebulization, inhaler, insulin pen, for efficient therapeutic results. They can make understand patients and their caregivers with various modes of information like PILS, information leaflets for better interpretation about the dose, duration, time, and precautions to be taken in a rational drug use pattern.

REFERENCES:

1. Rantucci MJ. Pharmacists talking with patients: a guide to patient counseling. Lipincott Williams & Wilkins; 2007.
2. Bradshaw SJ, Doucette WR. Community pharmacists as patient advocates: physician attitudes. *Journal of the American Pharmaceutical Association* (1996). 1998 Sep 1;38(5):598-602.
3. Brookes K, Scott MG, McConnell JB. The benefits of a hospital based community services liaison pharmacist. *Pharmacy World and Science*. 2000 Apr 1;22(2):33-8.
4. Kaboli PJ, Hoth AB, McClimon BJ, Schnipper JL. Clinical pharmacists and inpatient medical care: a systematic review. *Archives of internal medicine*. 2006 May 8;166(9):955-64.
5. Fang Y, Yang S, Zhou S, Jiang M, Liu J. Community pharmacy practice in China: past, present and future. *International Journal of Clinical Pharmacy*. 2013 Aug;35(4):520-8.
6. Bhuvan KC, Alrasheedy AA, Ibrahim MI. Do community pharmacists in Nepal have a role in adverse drug reaction reporting systems?. *The Australasian medical journal*. 2013;6(2):100.
7. Palaian S, Prabhu MU, Shankar PR. Patient counseling by pharmacist a focus on chronic illness. *Pak J Pharm Sci*. 2006 Jan 1;19(1):65-72.
8. Ramesh A. Patient counselling. *A Clinical Pharmacy Practice*. 2004:43-53.
9. Al-Saffar N, Abdulkareem A, Abdulhakeem A, Salah AQ, Heba M. Depressed patients' preferences for education about medications by pharmacists in Kuwait. *Patient education and counseling*. 2008 Jul 1;72(1):94-101.
10. Chevalier BA, Watson BM, Barras MA, Cottrell WN. Examining hospital pharmacists' goals for medication counseling within the communication accommodation theoretical framework. *Research in Social and Administrative Pharmacy*. 2016 Sep 1;12(5):747-55.
11. Daliri S, Hugtenburg JG, Ter Riet G, van den Bemt BJ, Buurman BM, Scholte op Reimer WJ, van Buul-Gast MC, Karapinar-Çarkit F. The effect of a pharmacy-led transitional care program on medication-related problems post-discharge: A before After prospective study. *PloS one*. 2019 Mar 12;14(3):e0213593
12. Lewis RK, Lasack NL, Lambert BL, Connor SE. Patient counseling a focus on maintenance therapy. *American journal of health-system pharmacy*. 1997 Sep 15;54(18):2084-98.
13. Colombo LR, Aguiar PM, Lima TM, Storpirtis S. The effects of pharmacist interventions on adult outpatients with cancer: A systematic review. *Journal of Clinical Pharmacy and Therapeutics*. 2017 Aug;42(4):414-24.
14. Birand N, Boşnak AS, Diker Ö, Abdikarim A, Başgüt B. The role of the pharmacist in improving medication beliefs and adherence in cancer patients. *Journal of Oncology Pharmacy Practice*. 2019 Dec;25(8):1916-26.
15. Ramanath KV, Balaji DB, Nagakishore CH, Kumar SM, Bhanuprakash M. A study on impact of clinical pharmacist interventions on medication adherence and quality of life in rural hypertensive patients. *Journal of Young Pharmacists*. 2012 Apr 1;4(2):95-100.

16. Al Mazroui NR, Kamal MM, Ghabash NM, Yacout TA, Kole PL, McElnay JC. Influence of pharmaceutical care on health outcomes in patients with Type 2 diabetes mellitus. *British journal of clinical pharmacology*. 2009 May;67(5):547-57.
17. Mohiuddin AK. Psychiatric Pharmacy: New Role of Pharmacists in Mental Health. *J Psychiatry Mental Disord*. 2019;4(1):1010.
18. Befeler AS, Palmer DE, Hoffman M, Longo W, Solomon H, Di Bisceglie AM. The safety of intra-abdominal surgery in patients with cirrhosis: model for end-stage liver disease score is superior to Child-Turcotte-Pugh classification in predicting outcome. *Archives of Surgery*. 2005 Jul 1;140(7):650-4.
19. Ibrahim MI, Palaian S, Al-Sulaiti F, El-Shami S. Evaluating community pharmacy practice in Qatar using simulated patient method: acute gastroenteritis management. *Pharmacy Practice (Granada)*. 2016 Dec;14(4).

