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COUNSELLING ROLE OF PHARMACIST FOR SAFE AND EFFECTIVE USE OF OVER-THE-COUNTER (OTC) MEDICATIONS

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ABSTRACT

Over-the-counter (OTC) drugs, which offer pharmacological remedies for mild illnesses without a doctor's prescription, are crucial for self-medication and basic healthcare. Self-medication with OTC medications was not regarded as a healthy activity before. However, FDA stated that "as long as these medicines are used in accordance with the directions, they are deemed safe and effective". Incorrect use of OTC medicines will lead to problems such as side effects, drug interactions, and inefficacy of treatment. The community pharmacist plays a significant role in controlling OTC medicines. He ensures that patients receive specific advice, proper use, and instruction on self-medication. This study focuses on how community pharmacists play an important role in OTC drug management, highlighting their duties, strengths, weaknesses, and ways of increasing their effectiveness. With regard to their availability and expertise, community pharmacists have the potential to play a significant role in improving the safety and effectiveness of OTC drugs. The pharmacodynamics, therapeutic classifications, and adverse drug reactions (ADRs) related to popular over-the-counter drug classes are all thoroughly examined in this paper. Drug-drug interactions, contraindications, and the dangers of abuse or toxicity from unsupervised usage are also covered. Through patient education and pharmacovigilance, pharmacists play a critical role in improving treatment outcomes. Even while over-the-counter medications are usually safe when taken as directed, misuse can result in serious systemic problems, treatment failures, or delayed diagnoses. Therefore, to guarantee the sensible and secure use of over-the-counter pharmaceuticals, it is essential to incorporate evidence-based guidelines and strong counseling mechanisms.

Keywords: Pharmacist role, OTC drugs, counselling, Rational use.

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INTRODUCTION

The World Health Organization (WHO) and all other health organizations involved globally consider Over-the-counter (OTC), pharmaceuticals can be bought without a doctor's prescription. They are frequently used to treat mild illnesses such as pains, fevers, headaches, and colds. OTC drugs are essential to healthcare because they improve accessibility, are affordable, encourage convenience and self-care, and promote health literacy [1]. These drugs are easily accessible at neighborhood pharmacies and don't require a prescription, which makes it simpler for people to treat minor health ailments like headaches or digestive problems [2-5]. OTC medications can assist reduce healthcare expenditures because they

are typically less expensive than prescription drugs. OTC drugs lessen the need for doctor visits for less serious ailments by enabling people to take care of minor health issues on their own [6, 7]. Additionally, certain OTC products, such as vitamins and antacids, can help prevent chronic health issues.

OTC medications are non-prescription drugs that people commonly use to address symptoms such as acute pain, allergies, coughs, colds, flu, and headaches, as well as health issues like sleep disturbances, gastrointestinal discomfort, and heart health. Because OTC medications can be purchased without a prescription, their use often goes unreported to healthcare practitioners, limiting

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opportunities for clinical oversight. Taking medication without the knowledge, consent, or supervision of a healthcare professional increases the associated risks, particularly for older adults aged 65 and over. The inappropriate use of OTC medications in older adults is a significant yet often overlooked safety concern. Nearly 40% of this population reports using OTC medications, and evidence indicates that over half of older adults do not use these medications safely.

Being easily accessible healthcare professionals, community pharmacists are in the best possible position to supervise the consumption of over-the-counter drugs. Being specialists in pharmacotherapy and interacting with the general public, they are able to provide vital assistance such as counseling patients, recommending appropriate drugs, and instructing them about self-medication. The contribution of community pharmacists in managing over-the-counter drugs is of vital importance to ensure their safe and effective usage and thus prevent adverse effects and promote the most desirable outcome of treatment. The purpose of this paper is to discuss the role that community pharmacists play in over-the-counter drugs management. The paper will review specific duties and responsibilities of community pharmacists, benefits associated with their involvement in OTC drugs management, difficulties and challenges they face, as well as measures that can help improve their effectiveness in this field. In order to increase the efficiency of healthcare systems, they need to appreciate the significant role played by community pharmacists in OTC drugs management and facilitate their work.

Healthcare has long sought to reduce harm associated with OTC use, mainly by implementing evidence-based clinical practice standards. The Beers Criteria, which were first created in 1991 and are updated on a regular basis—the most recent update took place in 2019—are an important resource for pharmaceutical safety. Pharmacists working at Veterans Administration institutions and U.S. healthcare systems find the Beers Criteria to be a useful resource. As part of individualized therapy, the Beers Criteria have continuously brought attention to issues with a variety of over-the-counter pharmaceuticals and encouraged the selection of drugs based on knowledge of their pharmacologic characteristics and personal vulnerabilities [8, 9].

ADVANTAGES OF OTC MEDICATIONS

1. The availability of over-the-counter medications makes it easy and cost-effective for ordinary people to get themselves treated for mild and/or self-limiting conditions. At the

same time, Doctors and Physicians can focus on other serious problems since they do not have to prescribe medicines for simple ailments.

2. OTC medicines are considered safe and effective for treating symptoms of minor ailments such as colds, coughs, fevers, headaches, and body aches.
3. Patients can quickly access effective medications without incurring consultation fees.
4. Time spent waiting for consultations is eliminated.
5. Use of OTC medication for minor ailments after proper counseling from pharmacist also overcome the burden of government hospitals.

Pharmacists can provide valuable information regarding dosage, uses, side effects, and potential drug interactions to ensure the optimal use of OTC medicines. Pharmacists are authorized to dispense OTC medications [10-12].

DISADVANTAGES OF OTC MEDICATIONS

1. There is a risk of increased drug resistance with improper use of OTC medications.
2. Patients may fail to follow label instructions correctly.
3. Taking OTC medications alongside prescription drugs can elevate the risk of drug-drug interactions.
4. There is potential for misuse and abuse due to incorrect dosing.
5. Incorrect treatment may be administered for severe illnesses [13-16].

CLASSIFICATION OF OTC DRUGS

Over-the-counter (OTC) medicines refer to medicines which under the provisions of the national law, may be sold to the consumer without a prescription. Over-the-counter (OTC) medications are usually administered as the initial treatment approach for minor illnesses. When it comes to over-the-counter (OTC) medication, the key considerations for selecting any drug include the safety and efficacy of the product. Under the consideration of patient education levels and socioeconomic status, self-medication has been recognized as an integral part of health care by WHO. The list of FDA approved and most commonly used Over the Counter medications is presented in Figure 1.

ROLE OF PHARMACIST

Pharmacists occupy a unique and authoritative role in promoting current safety protocols for the appropriate selection and use of OTC medications among older adults. They regularly interact with patients and have access to prescription profiles, allowing them to identify therapeutic duplications and potential drug-drug interactions.



Figure 1: List of common over-the-counter medications.

Their training enables them to assess the safety of OTC medications based on a patient's existing health conditions, and they can recommend safer pharmacological or non-pharmacological alternatives as needed. However, several work-related barriers can prevent pharmacists from fully utilizing their expertise in supporting safe OTC selections. For instance, the physical distance between pharmacy workstations and OTC product placements, constant time pressures related to prescription filling and quality control, and a typically heavy workload all impede pharmacist-patient consultations regarding OTC medications. While pharmacists recognize many potential barriers to engaging patients about safe OTC use, insufficient knowledge or ineffective communication are generally not viewed as significant obstacles. As a result, pharmacists' expertise in this critical area of medication safety remains underutilized and under-examined in the U.S.

Counseling Role for Pain Killers (NSAID) Rational Use

A pharmacist should play the role by counselling and taking following action: 1. According to British Heart Council regular and permanent use of paracetamol (acetaminophen) could increase the

risk of heart diseases and stroke in hypertension patient so use paracetamol only when needed; 2. Mefenamic Acid is most commonly used NSAID for Menstrual Cramps in females; 3. Never take any NSAID with empty stomach because they can cause stomach ulcer; 4. Take the medication with food and a sufficient amount of water; 5. If relief is not felt after a few doses, consult a doctor; 6. If you are using aspirin, consult your doctor before taking ibuprofen or diclofenac, as their combination can enhance anticoagulant effects; 7. Inform your doctor about any allergies or side effects experienced after taking the medication; 8. Notify your doctor if you are using OTC medications alongside prescription drugs, as they may have life-threatening interactions [17-20].

Counseling Role for Cough Expectorants and Suppressants Rational Use

A pharmacist should play the role by counselling and taking following action: 1. Drink plenty of water while taking expectorants to aid effectiveness; 2. Follow the prescribed dosage and frequency to avoid unnecessary side effects; 3. Inform your doctor of any allergies or side effects experienced after taking the medication; 4. Do not drive when you take cough suppressants like Dextromethorphan and Codeine because it may

cause drowsiness and dizziness; 5. Avoid to take cough suppressants in productive cough because it may lead to the serious infection; 6. In Children Cough suppressants should be used with cautions and according to recommended dose and doctors prescription because a little high dose will lead to serious side effects in children.

Counseling Role for Anti-Diarrheal Rational Use

A pharmacist should play the role by counselling and taking following action: 1. There is no need of treatment for acute diarrhea just take ORS (Oral Rehydration Solution) to reduce dehydration; 2. To prevent issues, adhere to the specified dosage and don't go above it; 3. Steer clear of foods that irritate the digestive system, such as those high in fat, spice, or dairy; 4. During your recuperation, limit your diet to bland meals like BRAT diet (Banana, Rice, Apple, and Toast); 5. According to WHO Zinc supplement helps to reduce the severity and duration of diarrhea and lower the risk of future diarrheal episodes; 6. Increase fluid and fiber intake if constipation occurs 7. In case of severe diarrhea consult the doctor as soon as possible.



Figure 2: Pharmacist counseling the patient about OTC medicines.

Counseling Role for Anti-Emetics Rational Use

A pharmacist should play the role by counselling and taking following action: 1. Hyoscine is used as first choice antiemetic in motion sickness if not available than antihistamine like Dimenhydrinate can be used; 2. According to FDA pregnancy classification of drugs Doxylamine is considered as the safest antiemetic drug in 1st trimester of pregnancy later on ondansetron and granisetron are also safe can be used in 2nd and 3rd trimester; 3. Prokinetic agents like domperidone and metoclopramide should be avoided if a patient complains vomiting with diarrhea because they also increase the motility of GIT and can cause severe diarrhea, prokinetic agents are mostly used in fever induced vomiting; 4. If you do not feel relief after taking the medication, consult your doctor; 5. Patients with heart disease or a history of arrhythmias should use with caution.

Counseling Role for Antihistamine Rational Use

A pharmacist should play the role by counselling and taking following action: 1. Avoid alcohol, as it

increases the sedative effects of antihistamines; 2. Some antihistamines may not be safe during pregnancy; consult a healthcare provider before use; 3. Antihistamines can interact with other medications, such as sedatives and antidepressants; consult a healthcare provider before use; 4. 1st Generation antihistamines like chlorpheniramine and pheniramine maleate are also used in cough syrups to reduce cough indirectly; 5. 2nd generation antihistamines like Cetirizine used to prevent runny nose, sneezing and allergic rhinitis, levocetirizine used to prevent itching, redness and skin allergies, Loratadine used to prevent seasonal allergies and Hay fever and fexofenadine is used to prevent allergic symptoms and chronic urticaria, many other latest 2nd generation antihistamines like ebastine, bilastine and rupatadine can be used.

Counseling Role for Laxatives Rational Use

A pharmacist should play the role by counselling and taking following action: 1. Drink plenty of water, especially with osmotic laxatives, to prevent dehydration and ensure effectiveness; 2. Avoid stimulant laxatives during pregnancy; 3. Monitor for side effects such as diarrhea, abdominal cramping, or bloody stools. If any occur, discontinue use and consult a doctor; 4. Osmotic laxative like lactulose should not be given to diabetic patient or should be used with cautions because it may raise the sugar level of diabetic patient and stimulant laxative like sodium picosulphate should be avoided in hypertensive patient because it may increase the blood pressure of patient; 5. Increase dietary fiber (e.g., fruits, vegetables, whole grains) to promote natural bowel movements and reduce dependency on laxatives [21-23].

Counseling Role for Nutraceuticals Rational Use

A pharmacist should play the role by counselling and taking following action: 1. Nutraceuticals are only used when our body need it without the need of body there is no advantage of taking nutraceuticals because every vitamin and mineral have their own different role in our body like Vitamin B₁₂ (Methylcobalamin) helps the body to produce red blood cells, glucosamine and Chondroitin are very good for joints health, Magnesium is very good for our muscles and it regulate our sleep as well. Vitamin D strengthen the muscles and also involve in contractility and potassium (Vitamin K₂) increase the absorbance of Vitamin D₃, Vitamin C is a very strong antioxidant for our body. Do Not take any vitamin or mineral if not need because excess of everything is bad.

CONCLUSION

Pain, allergies, diarrhea, constipation, cough, vomiting and cold symptoms can all be effectively treated with OTC drugs. However, considerable consideration is necessary for its safe use. When taken as prescribed, over-the-counter medications

are generally regarded as safe; nevertheless, abuse or overuse can result in negative side effects and even serious medical issues. As a result, it's critical to carefully read label instructions, adhere to them, and seek medical advice if symptoms continue for a long time. When over-the-counter drugs are used correctly, issues can be avoided and health can be maintained. Examining the features of OTC interactions—the subject of this study and the initial stage of current research—can lead to further developments in this field. Without substantially adding to the burden of pharmacy employees, evidence-based programs to support successful OTC

encounters can improve pharmacists' capacity to help people, especially older persons, navigate the complexity of OTC medicine use.

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