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## Community Pharmacist's Perspective regarding Self-Medication for Pain Management: Challenges, Risks, and Best Practices.

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### KEYWORDS

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### ABSTRACT:

A common ailment linked to self-management is pain, and how much a person uses drugs depends in large part on how much they catastrophize about their physical discomfort. Acute pain is usually responsible for consumption of large amount of NSAID whereas chronic pain is being treated with opioid analgesics, anti-depressants or antiepileptic. Self-medication is defined as taking prescription medications on an intermittent or continuous basis to treat a chronic or recurrent illness or its symptoms, or as using pharmaceuticals to treat diseases or symptoms that oneself diagnoses. All pain medications may or may not be associated with side effects and there might be chances where pain medication may interact with other medications but patients don't release that due to lack of knowledge. Pharmacist intervention in self-medication for pain management is crucial. Pharmacist intervention in self-medication for pain management presents both challenges and benefits in the realm of healthcare. Pharmacist can mitigate the challenges by providing accurate information, ensuring proper drug selection, and offering guidance on dosage and potential side effects which can reduce the risk of adverse events associated with self-medication, fostering improved patient outcomes. The benefits extend beyond mere drug dispensation, encompassing patient education on pain management strategies, the promotion of responsible self-care.

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### INTRODUCTION:

The practice of self-medication, involves individuals treating their own health conditions without

professional supervision, has become a common phenomenon in modern healthcare. Since pain is a universal human experience, people often turn to readily available over-the-counter (OTC) medications for self-



medication. The prevalence of self-medication for pain management has increased recently due to factors like easy access to medications, rising healthcare costs, and rising awareness of common pain relief remedies (1).

In today's fast-paced world, where immediate solutions are often sought, self-medication has emerged as a prevalent practice. Self-medication is the practice of using drugs or other treatments to treat minor illnesses or symptoms on oneself without a doctor's direct supervision. This practice includes a broad variety of over-the-counter (OTC) medications, or pharmaceuticals that are available over-the-counter (OTC) without a prescription. The idea of self-medication and the accessibility of over-the-counter medications have drastically changed how individuals take care of their health and wellbeing.

Acute or chronic pain affects a person's ability to go about their everyday life, their emotional health, and their general quality of life. Patients often turn to self-medication as a handy approach to address the wide range of pain experiences that range from headaches and muscular pains to joint pain and neuropathic discomfort. This practice is widely used in all age groups and socioeconomic backgrounds, which makes it an important topic of investigation in modern healthcare (2,3).

The desire for having control over one's health is at the core of the idea of self-medication. It is a reflection of people becoming more conscious of their own bodies and health issues. OTC drugs are widely available in pharmacies, grocery stores, and internet retailers. They include anything from antacids and allergy medications to pain relievers and cold remedies. Because of its accessibility, people may quickly take care of common health conditions and get back to their everyday activities without having to put off going to the doctor (4).

The implications of self-medication for pain management extend beyond the individual level, shaping broader healthcare dynamics. Understanding the prevalence of self-medication is essential not only for assessing the patterns of medication usage but also for discerning the associated risks and challenges faced by individuals who engage in self-medication practices. Moreover, exploring this phenomenon from the

perspective of healthcare professionals, particularly pharmacists, is fundamental in promoting safe and responsible self-medication practices. Pharmacists, as accessible and knowledgeable healthcare providers, play a central role in guiding patients toward informed decisions regarding self-medication, thereby influencing the overall landscape of pain management practices (5).

It is essential to comprehend the OTC notion and the dynamics of self-medication in contemporary healthcare. It illustrates the meeting viewpoints of responsible health management, pharmaceutical accessibility, and individual empowerment. Examining the variables influencing self-medication, the difficulties people encounter, and the part played by medical professionals—especially pharmacists—in guaranteeing the safe and efficient use of over-the-counter drugs is crucial as the field of self-medication develops. By delving into these facets, this review hopes to clarify the complexity of self-medication and over-the-counter drug use as well as the importance of responsible healthcare practices and educated decision-making in the modern world.

## **CURRENT TRENDS IN PATIENT SELF MEDICATION PRACTICE:**

With the proliferation of the internet and social media, patients have become more reliant on online sources for health information. This trend has influenced self-medication practices where individuals are seeking advice from websites, forums, and social media platforms. The range and availability of OTC medications have also expanded, allowing patients to address a broader array of symptoms without a prescription which has increased the accessibility to self-medication practices. The rise of telemedicine services have enabled the patients to consult with healthcare professionals remotely (1). There is a growing interest in natural and alternative remedies for various health issues. Herbal supplements, essential oils, and other natural products are increasingly getting popular among individuals looking for self-treatment options for curing various diseases. Increased awareness of antibiotic resistance has also led to a decrease in self-medication with antibiotics as patients have become more cautious about the potential dangers of misusing antibiotics without a



healthcare professional's guidance. A growing trend in self-medication for mental health issues includes the use of OTC supplements and substances like CBD oil. However, this trend raises concerns about the lack of professional guidance for mental health conditions. Governments and health organizations have become increasingly concerned about the potential risks associated with self-medication, leading to stricter regulations in some regions. Public health campaigns are conducted regularly, aiming to educate the public about responsible self-medication practices. The COVID-19 pandemic has likely influenced self-medication trends, with individuals self-treating mild symptoms at home to avoid healthcare facilities. Additionally, there has been increased interest in vitamins and supplements to boost the immune system(3,6).

## COMMON TYPES OF PAIN MEDICATION AND THEIR SIDE EFFECTS:

Pain medications, also known as analgesics, are drugs specifically designed to relieve pain. Pain can occur due to various reasons such as injury, surgery, chronic conditions, or other medical procedures. They work by interfering with pain signals sent to the brain, providing relief and improving the overall quality of life for individuals experiencing discomfort (7). There are several types of pain medications, each with its mechanisms of action, uses, and potential side effects.

**Nonsteroidal Anti-Inflammatory Drugs (NSAIDs):** They are a common class of pain relievers that reduce inflammation, alleviate pain, and lower fever. They work by blocking enzymes (COX-1 and COX-2) that contribute to pain and inflammation. Common NSAIDs include ibuprofen (Advil, Motrin) and naproxen (Aleve). These medications are often used for mild to moderate pain caused by conditions like arthritis, menstrual cramps, and injuries (8).

**Acetaminophen:** Acetaminophen, known as paracetamol in some regions, is another widely used pain reliever and fever reducer. Unlike NSAIDs, acetaminophen does not have significant anti-inflammatory effects. It's often used to manage mild to moderate pain, such as headaches and musculoskeletal pain. Acetaminophen is gentler on the stomach compared to NSAIDs, making it a preferred choice for individuals

with sensitive stomachs or a history of gastric problems (9).

**Opioids:** Opioids are potent pain medications derived from the opium poppy plant or synthetically manufactured. They work by binding to opioid receptors in the brain and spinal cord, reducing the perception of pain. Opioids are typically prescribed for severe pain, such as pain after surgery or cancer-related pain. Common examples include oxycodone, hydrocodone, morphine, and codeine. Due to their strong effects and the risk of dependence, opioids are strictly regulated and monitored by healthcare providers (10).

**Muscle Relaxants:** Muscle relaxants are medications that help alleviate muscle spasms and pain associated with muscle injuries. They work by depressing the central nervous system, leading to muscle relaxation. These medications are often prescribed for conditions such as muscle strains and sprains. Common muscle relaxants include cyclobenzaprine and methocarbamol.

**Adjuvant Analgesics:** Adjuvant analgesics are drugs originally developed for non-pain conditions but are found to be effective in relieving certain types of pain. Examples include certain antidepressants, anticonvulsants, and topical creams. These medications are often used to manage neuropathic pain, which is caused by nerve damage and is different from typical pain caused by injury or inflammation.

Pain medications, like all medications, can have side effects. The specific side effects vary depending on the type of medication, the dosage, and an individual's response to the drug. It's essential to note that not everyone will experience these side effects, and some side effects can be mild and temporary, while others can be severe and require immediate medical attention. Here are some common side effects associated with different types of pain medications:

**Nonsteroidal Anti-Inflammatory Drugs (NSAIDs)** (e.g., Ibuprofen, Naproxen, Aspirin): Upset stomach, heartburn, stomach pain, drowsiness or dizziness, headache, high blood pressure (with prolonged use), serious side effects: black or bloody stools, vomiting blood or material that looks like coffee grounds, allergic



reactions (rash, itching, swelling, severe dizziness, difficulty breathing).

Opioids (e.g., Morphine, Oxycodone, Hydrocodone): Drowsiness, constipation, nausea and vomiting, Itching, respiratory depression (slow or shallow breathing), serious side effects include difficulty breathing or swallowing, severe dizziness or fainting, confusion, seizures, signs of an allergic reaction (rash, itching, swelling, severe dizziness, difficulty breathing)

Muscle Relaxants (e.g., Cyclobenzaprine, Baclofen, Methocarbamol): Drowsiness, dizziness, dry mouth, blurred vision, serious side effects include rapid or irregular heartbeat, mental/mood changes (such as confusion, hallucinations).

Topical Analgesics (e.g., Lidocaine patches, Capsaicin cream): Skin irritation or redness at the application site, severe skin reactions (blistering, severe redness, rash).

## **PATIENT INCLINATION TOWARDS PAIN MEDICATION:**

Patients are often inclined toward getting Over-the-Counter (OTC) pain medications for several reasons, mainly due to their accessibility, perceived effectiveness, cost, and convenience. They do not require a prescription, making them easily accessible at pharmacies, supermarkets, and convenience stores so patients purchase these medications without the need for a doctor's visit. Previous positive experience of relief from aches, pain and headaches with OTC pain medication and recommendations from family and friends. The affordable price of OTC pain relievers also attracts individuals without health insurance and those looking to manage healthcare costs. The convenience of getting immediate relief without waiting for doctor's appointment or prescription approval empowers patients to manage their health independently (1,3,6).

## **RISKS ASSOCIATED WITH OTC PAIN MANAGEMENT:**

Self-medication for pain management poses various risks to the individuals and can range from mild side effects to severe complications, and may vary

depending on the medication, the individual's health condition, and any underlying medical issues. Without a proper medical diagnosis, patients might incorrectly identify the cause of their symptoms, and treating the wrong ailment with inappropriate medication can have undesirable effects. Self-medication can mask the symptoms of serious underlying health conditions, delaying proper diagnosis and treatment. Some conditions, if not promptly addressed, can worsen over time. Combining self-medicated drugs with prescription medications, herbal supplements, or other OTC drugs can lead to dangerous interactions, causing adverse effects or reducing the effectiveness of prescribed medications (11,12). Sometimes patients are not aware of their allergies to specific medications which can lead to severe allergic reactions, including anaphylaxis, which can be life-threatening.

Patients don't know the accurate dose required for the treatment of the ailment. In such case if they take incorrect dosage, whether too much or too little, it can lead to ineffective treatment, increased side effects, or toxicity, especially with medications that have a narrow therapeutic index. Resistance development happens with the inappropriate use of antibiotics. Self-medication using opioid drugs may lead to development of dependency and addiction which may result in cycle of drug abuse that would require professional intervention to overcome (8,13).

## **PHARMACIST INTERVENTION TO ASSESS THE EFFECTIVENESS AND SAFETY OF OTC SELF MEDICATION FOR PAIN MANAGEMENT:**

Pharmacists possess a profound understanding of medications and their indications, contraindications, dosages, and potential interactions. Their expertise allows them to guide patients towards choosing the most suitable OTC medications based on individual health conditions, allergies, and existing medications. They assess the appropriateness of self-medication, considering the specific symptoms and medical history of the individual, thus ensuring the chosen OTC drug is both safe and effective (5).

OTC medications, when used inappropriately or in combination with other drugs, can lead to adverse



reactions and dangerous interactions. Pharmacists are trained professionals who can identify potential risks associated with self-medication and their intervention helps prevent adverse events, ensuring that the selected OTC medication does not exacerbate existing health issues or interfere with prescribed medications (14). Some patients may require prolonged or frequent self-medication without realizing the long-term consequences. Pharmacists can monitor such patients who engage in recurrent self-medication, ensuring that the chosen OTC medications do not mask underlying health issues. By educating individuals about the importance of reading labels, adhering to recommended dosages, and seeking professional advice, when necessary, pharmacists can foster a culture of informed decision-making. Their guidance can contribute significantly to public health by preventing self-medication misuse and promote a sense of responsibility in managing one's health (11,14).

## **BENEFITS AND ADVANTAGES OF PHARMACIST GUIDED SELF MEDICATION FOR PAIN MANAGEMENT:**

Pharmacists serve as reliable sources of information, offering in-depth knowledge about various over-the-counter (OTC) pain relief options. They provide patients with detailed explanations about the differences between medications, including their active ingredients, mechanisms of action, and potential side effects. This information allows patients to make well-informed decisions based on their specific pain symptoms and medical history.

They also play a crucial role in ensuring patients understand the correct dosage and administration of pain medications and provide clear instructions on the appropriate dosage for different age groups and advise on the frequency of administration and by clarifying dosing guidelines, pharmacists help patients avoid overdosing, which can lead to serious health complications (16,17).

Pharmacists conduct thorough medication reviews, taking into account patients' complete medication histories which enables them to identify potential interactions between pain relievers and other medications a patient might be taking thereby ensuring the safety and well-being of patients with multiple health conditions.

They are trained to recognize symptoms that might indicate underlying health conditions. For instance, persistent or worsening pain could be a sign of an undiagnosed medical issue. Pharmacists can ask pertinent questions, assess symptoms, and recommend patients to seek further medical evaluation if necessary, ensuring timely diagnosis and treatment.

Pharmacists have the ability to meticulously review patients' allergy histories to identify potential allergens in pain medications. By considering patients' allergies and sensitivities, pharmacists can prevent adverse reactions and allergic responses which allow the patient to can confidently use medications without fear of unexpected side effects, enhancing their overall safety and comfort. They serve as educators, imparting valuable information to patients. They emphasize the importance of responsible medication use, stressing factors such as not exceeding recommended doses, avoiding alcohol consumption while taking pain medications, and understanding potential side effects. Patient education enables individuals to use medications safely, minimizing risks and ensuring optimal outcomes (18).

Pharmacists can schedule follow-up consultations with patients to monitor the effectiveness of the prescribed pain management strategy. During these appointments, they assess patients' progress, inquire about any adverse effects or changes in symptoms, and make necessary adjustments to the treatment plan. Proper pain management significantly enhances patients' overall well-being. By effectively alleviating discomfort, patients can engage in daily activities, improve their quality of life, and experience reduced stress and anxiety related to pain. Pharmacists' guidance ensures that patients can manage pain without compromising their overall health and happiness, fostering a sense of well-being and a positive outlook on life (19).

## **CHALLENGES ASSOCIATED WITH PHARMACIST INTERVENTION REGARDING SELF MEDICATION:**

Patients with limited proficiency in the local language often find it challenging to express their symptoms accurately, leading to misunderstandings during consultations with pharmacists. Language barriers can



result in miscommunication, affecting the patient's understanding of dosage instructions and potential side effects (14). Patients with low health literacy may struggle to comprehend medical information, making it challenging to understand medication labels and follow proper dosage instructions. Misinformation from unreliable sources can lead to incorrect self-diagnosis and inappropriate medication use (7). Polypharmacy due to usage of multiple drugs can lead to drug interactions, increased side effects, and decreased adherence to prescribed medications which patients don't understand to don't tend to understand. Certain combinations of medications can lead to adverse drug reactions, ranging from mild discomfort to severe complications, especially in patients with pre-existing conditions (4).

## **STRATEGIES FOR OVERCOMING THESE CHALLENGES:**

Culturally competent care, health literacy initiatives, and effective communication are key to addressing the challenges associated with self-medication. Pharmacists should receive cultural competence training, enabling them to understand diverse cultural beliefs and practices, fostering trust and effective communication with patients from various backgrounds. They should actively participate in health literacy programs within the community, conducting workshops, distributing educational materials, and promoting awareness about responsible self-medication (20,21). They should prioritize one-on-one counseling sessions with patients, allowing them to ask questions, express concerns, and receive personalized guidance, promoting adherence and safe medication use.

Pharmacists should utilize professional interpreters or bilingual pharmacy staff members can facilitate effective communication, ensuring accurate transmission of medical information. They should implement visual aids, such as diagrams and charts that can enhance understanding, especially when explaining complex medication regimens. Pharmacists can use plain language, avoiding technical jargon, to convey crucial information clearly and should provide clear, concise instructions both verbally and in writing, emphasizing key points to enhance understanding. Engaging in health

literacy programs within the community, providing educational materials and workshops can improve patients' ability to comprehend health information (22). Regularly reviewing patients' medication histories to identify potential interactions and recommending adjustments in consultation with physicians and educating patients about the risks associated with polypharmacy, emphasizing the importance of medication adherence, and discouraging unnecessary supplements or herbal remedies.

## **CONCLUSION:**

In conclusion, addressing the challenges associated with self-medication requires comprehensive patient centric approach. Pharmacist, as trusted healthcare professional can help mitigate the risk of self-medication for pain management by fostering effective communication, promoting health literacy and employing tailored interventions. Pharmacists stand as essential gatekeepers in the realm of self-medication for pain management. By addressing the challenges, mitigating risks, and adhering to best practices, pharmacists can empower patients to make informed decisions about their health. Ensuring effective pharmacist-patient interactions, personalized care, and ethical considerations are paramount in achieving optimal outcomes in pain management practices.

**CONFLICT OF INTEREST:** None

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