

SELF-MEDICATION: A MAJOR CONCERN

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Abstract–Self-medication, the practice of using over-the-counter (OTC) medications or alternative treatments without consulting a healthcare professional, is prevalent in India. We have summarised a comprehensive report on self-medication in India, covering its prevalence, drivers, risks, and potential remedies. The report highlights the widespread nature of self-medication across various demographics and regions in India, driven by factors such as accessibility, cost, convenience, and lack of healthcare access. It identifies the risks associated with self-medication, including misdiagnosis, delayed treatment, drug resistance, adverse reactions, and masking of symptoms. The report also proposes a multifaceted approach to address the issue, including public awareness campaigns, regulatory measures, improved healthcare access, professional training, and use of telemedicine services to improve healthcare access in difficult-to-reach demographics. Overall, this report highlights the significance of addressing self-medication in India through collaborative efforts from healthcare authorities, regulatory bodies, healthcare providers, pharmacists, community leaders, and the public to promote responsible healthcare practices and mitigate associated risks.

Keywords: *Self-medication, Convenience, Misdiagnosis, Telemedicine*

Introduction

Self-medication presents a complex challenge, particularly in developing nations including India, where equitable healthcare access is still a distant goal due to numerous reasons. Due to various reasons, patient often turn to self-medication. However, this reliance on self-administered treatments often lead to detrimental outcomes. Research underscores that self-medication may delay individuals from seeking professional medical help, resulting in prolonged illnesses and increased economic burdens¹. Furthermore, the lack of professional observation can lead to harmful drug interactions, exacerbating health issues

and potentially causing serious complications. Notably, the misuse of antibiotics through self-medication contributes to the alarming global concern of anti-microbial resistance, highlighting the pressing demand for efficient oversight and education on responsible medication practices.

People with minor ailments usually tend to believe that Over-the-counter (OTC) drugs provide a convenient and cost-effective solution that offers relief without the need for proper medical consultation. The use of OTC drugs becomes crucial in rural and remote regions where access to healthcare professionals is either limited or socio-

economically not favourable. In such cases, self-medication becomes a practical necessity rather than a choice. Understanding the motivations and prevalence of self-medication through community-level studies in India is essential. Insights gained through such studies can inform policymakers and regulatory bodies about issues and remedies for judicious use of self-medication, streamline drug regulation to promote ethical practices among the healthcare providers and tackle safety issues linked to the over use of OTC drugs.[9]

Why do people self-medicate?

Well-informed consumers (patients) have confidence in their competence and can maintain their personal health due to wide spread and easy access to medical diagnosis for uncomplicated and some prolonged illnesses. For example: use of histamine H2-receptor blocker [1], cough and cold remedies, drugs for rheumatoid arthritis, topical corticosteroid, antibiotics, antivirals and antifungal. Many other factors that promote people to self-medicate includes socio-economic situation, saving time, carelessness apart from many other unknown reasons[1]

Role of pandemic in self-medication

In recent times, it's become increasingly common for doctors to encounter patients who arrive with minimal information but a wealth of misinformation about their symptoms and health condition, often courtesy of online search tools and healthcare applications. Prior to the pandemic, numerous studies indicated that up to 50 percent of individuals in India turned to the internet for medical information². This trend has only escalated over the past two and a half years, particularly during lockdowns when people, feeling anxious and confined at home, turned to the internet in a fanatic search for reassurance that symptoms like cough and fever were not indicative of Covid-19.

Trend of "Rx-to-Over-the-Counter Switch"

When prescription medicines become available for purchase without a prescription, it's called an "Rx-to-OTC switch."¹ Initially, many new medicines are only available with a prescription but over-the-period wide spread use become popular due to psychological belief that new medicine is fast and more effective than older ones. Additionally, certain healthcare providers and local chemist start malpractices of providing scheduled drugs without prescriptions for creating new consumer base and earning higher profits.[6]

Undiagnosed Medical Conditions

It's essential to recognize that there may be underlying medical conditions or disorders that could interact negatively with certain medications. Moreover, if you choose to self-medicate in an attempt to alleviate symptoms without seeking advice from a doctor, you could unknowingly be attempting to manage an underlying medical issue that hasn't been diagnosed³. Without the guidance of a medical professional, an undiagnosed medical condition has the potential to worsen over time, potentially leading to more severe symptoms or complications down the time.

Furthermore, it's crucial to understand that misuse of OTC drugs can exacerbate certain chronic disorders. OTC medications are typically intended for occasional use by individuals who are generally in good health. However, if you have a chronic or serious medical condition, or if you anticipate needing to use an OTC medication on a regular basis, it's highly advisable to consult with a healthcare practitioner before purchasing these products. In such situations, the use of medication extends beyond routine self-care and necessitates the guidance and expertise of a qualified healthcare professional to ensure safe and effective management of your health concerns.

Conditions where self-medication gets worsen

1. Cough & Cold Medications: OTC Medication for relieving from Cough and cold containing anti-histamines, anti-allergics,

antitussive and anti-pyretic are utmost commonly abused and in infants under the age of six years can be dangerous⁴. The adverse effects are:

1. Hot flashes and sweating
2. Nausea and vomiting
3. Dizziness or Ataxia
4. Paranoia or panic attacks
5. Lethargy
6. Slurred speech

2. Pain Relievers: OTC pain reliever misuse get worsen when pain associated with severe infection or ailment is suppressed for the prolonged duration of time without detecting real reason or disease. Ones containing acetaminophen, for example, can lead to liver damage, kidney damage, and cardiovascular complications⁴.

3. Motion Sickness Medications: OTC motion sickness medications often contain diphenhydramine. While side effects of motion sickness medications vary depending on body weight and metabolism, some serious risks include seizures, heart attack and coma. Its prolonged use can lead to liver or kidneys toxicity or damage, cognitive issues like problems with memory and learning, and psychological symptoms like depression⁴.

Potential risks of Self Medication

1. Incorrect self-assessment of symptoms
2. Delay in seeking proper medical guidance
3. Overlooking specific drug risks
4. Occurrence of severe, albeit rare, side effects
5. Neglecting to inform the prescribing physician about on going self-medication (potential for harmful interactions)

6. Failing to identify or report adverse drug reactions

7. Improper method of drug administration

8. Inadequate or excessive dosage regimen

9. Prolonged, unnecessary drug usage

10. Potential for developing dependence or substance abuse

11. Interactions between food and medication

12. Inappropriate storage conditions or use beyond the recommended expiration date.[5]

Mitigation Strategies and Recommendations

Mitigating the risk of fatal outcomes associated with self-medication necessitates a holistic approach that encompasses diverse aspects of factors contributing to unsafe practices. Here are some strategies and recommendations to prevent fatal outcomes.

- Education and Awareness: Elevate public consciousness regarding potential hazards and proper medication use.
- Health Literacy Enhancement: Improve understanding of medical information.
- Professional Guidance: Encourage seeking medical advice before self-medication.
- Regulatory Oversight: Strengthen regulations on medication sale and labelling.
- Easy Access to Healthcare Services: Improve access to affordable healthcare and use of telemedicine for remote areas.
- Alternative Treatments: Promote lifestyle changes and integrative healthcare.
- Community Support: Establish support networks and collaboration.
- Monitoring and Surveillance: Implement systems to track medication misuse and adverse events.[7]

Role of Pharmacist

Pharmacist is a key stakeholder that plays a significant and important role in educating the patient and community concerning the appropriate utilization of medications designed for self-medication.

Pharmacists are essential in addressing drug-related issues to enhance patient wellbeing. Ambulatory pharmacists, particularly, promote safe and cost-effective medication use, especially for self-selected therapies. They encourage customers to seek physician guidance before self-medicating, ensuring optimal results and standard of living.

1. Communicator: Pharmacists must ask essential inquiries and provide relevant information on medication use and safety to patients.[7]
2. Quality Drug Supplier: Ensure procurement of products from trusted sources and maintain high-quality standards.[7]
3. Trainer and Supervisor: Develop protocols for referrals and for community health workers engaged in medication handling.[8]
4. Collaborator: Forge collaborative relationships with healthcare professionals, associations, governments, patients, and the public.[7]
5. Health Promoter: Participate in health screening, promotion campaigns, and provide advice for informed health choices, fostering safer self-medication practices[7]

Conclusion

The practice of self-medication presents significant concerns in developing countries, offering fleeting relief while carrying risks such as misdiagnosis and adverse interactions. Online pharmacies exacerbate these issues, highlighting the need for a comprehensive strategy encompassing healthcare

professionals, policymakers, regulatory bodies, and public education.

Healthcare professionals must prioritize patient education and advocate for seeking professional advice, while policymakers must enact stricter regulations, particularly regarding self-medication of prescription drugs. Concurrently, public education awareness initiatives are crucial for raising awareness and promote responsible healthcare seeking behaviors. By fostering informed decision-making and encouraging consultation with professionals, we can mitigate risks and enhance health outcomes. Collaboration among stakeholders is paramount to effectively address these challenges and safeguard public health.[9]

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