International Journal of Pharmaceutical research and Applications
Volume 8, Issue 4, Jul.-Aug. 2023, pp: 524-529 www.ijprajournal.com ISSN: 2456-4494

Self Medication Practice – An Insight

M. RangaPriya*, S. Kaavya, K. Manikandan, K.Priyanka, R.Manivannan
Dept. of Pharmacy Practice, Excel college of Pharmacy, Namakkal, Tamilnadu - 637303

***Corresponding Author:** Dr.M.RangaPriya, M.Pharm., Ph.D.,*
Professor & Head,
Dept. Of Pharmacy Practice,
Excel college of Pharmacy, Namakkal, Tamilnadu – 637303.

Date of Submission: 04-07-2023 Date of Acceptance: 16-07-2023

ABSTRACT
Self-medication is the practice of taking medications without a prescription to address symptomsof a sicknessor self-diagnosed illness.Self-medication may involve using commercial, conventional, and homemade therapies as well as dietary supplements.Self -medication may result in serious complications like bacterial resistance, drug interactions, severe side effects, an increase in fatal disease and malignancy, drug dependence, intentional and unintentional poisoning, and even death. In order to develop and implement methods and interventions to stop the irrational use of medications and thus lower their health hazards, it is necessary to have evidence about self-medication. This review discusses the prevalence of self-medication, its contributing causes, and the typical medications used in this context.Self-medication provides benefits for healthcare systems as well since it makes it easier to employ clinical skills more effectively, promotes access to medication, and could help cut the cost of prescription drugs for publicly supported health programmes. A person may become resistant to a certain antibiotic, exhibit hypersensitivity to drug withdrawal symptoms, and have a brief disease masking, all of which can delay a proper diagnosis. Health professionals may play a crucial role in protecting patients from the risks of self-medication when they are unaware of those risks. Patients' inappropriate, unpredictable, and unsuitable self-medication as well as noncompliance will only be decreased if they are informed and made to comprehend the rationale behind specific recommendations.

KEYWORDS: Self medication, OTC, medication practice, noncompliance, medication error

I. INTRODUCTION
Self-medication is the practice of taking medications without a prescription to address symptoms of a sickness or self-diagnosed illness.[1] Self-medication has many definitions, including utilising a prescribed medicine, refilling a previous prescription, recommending a drug to friends and family, taking leftover medication from prior prescriptions, and adjusting medication dosage.[2–5] Self-medication may involve using commercial, conventional, and homemade therapies as well as dietary supplements.[6] various populations and nations have various rates of self-medication: According to estimates, the rates are 22% in Spain,[7] 53% in Mexico,[8] 50% in India,[9] 60% in China,[10] 60%-90% in Nigeria,[11] and 41% in Iran.[12] Although self-medication lessens the financial burden placed on patients, healthcare systems, governments, and insurance providers,[13] its effects cannot be ignored because improper use of medications through self-medication may result in serious complications like bacterial resistance, drug interactions, severe side effects, an increase in fatal disease and malignancy, drug dependence, intentional and unintentional poisoning, and even death.[14–17] Numerous studies have demonstrated that a number of variables, such as age, sex, education level, marital status, socioeconomic status, health insurance coverage, place of residence, and the accessibility of pharmaceuticals for individuals, have an impact on self-medication.[18] Self-medication can happen to anyone at any age, but because it is most common among the elderly, additional care should be taken with them.[19,20] The increased danger of contracting several ailments as people age is one factor contributing to elderly people using drugs excessively. Diabetes, heart disease, and cancer are among the ailments that affect the elderly. Also, chronic co morbidities are

International Journal of Pharmaceutical research and Applications
Volume 8, Issue 4, Jul.-Aug. 2023, pp: 524-529 www.ijprajournal.com ISSN: 2456-4494

common in this age group which can lead to an increase in drug use.[20,21] The attitude of the elderly toward diseases, treatment and physicians, unfriendly treatment environment, inefficient health system, and peer influence are among the reported factors associated with self-medication in the elderly.However, compared to other age groups, the elderly have more complex drug-related concerns because of their unique pharmacodynamics and pharmacokinetics [1].[20] As a result, self-medication is a significant health concern for the elderly, and it requires extra care to identify all instances of it, particularly in developing nations. Healthcare professionals can lessen the negative impacts of self-medication in this way.[1] However, there isn't a thorough analysis of the self-medication trends and behaviours in this group. Designing suitable educational, regulatory, and administrative actions to lessen the health risks of self medication requires knowledge of the overall state of self medication.[22] In order to develop and implement methods and interventions to stop the irrational use of medications and thus lower their health hazards, it is necessary to have evidence about self-medication. This review discusses the prevalence of self-medication, its contributing causes, and the typical medications used in this context.

OTC AND SELF MEDICATION

Self-medication is characterised as using over-the-counter (OTC) drugs, reusing previously prescribed drugs without a doctor's supervision, or using non-prescription drugs. It is possible to buy over-the-counter medications without a prescription. This will help you save time and money and provide relief right away. Mild illnesses and prior positive experiences with some medications are two reasons why people self-medicines.

SOURCES OF INFORMATION

Several diverse places are available where people can receive knowledge, including chemists, friends, family, TV commercials, books, the internet, and pharmacy employees. Simple medicines are also sold in grocery stores, stationery stores, and pan shops. Analgesics, antipyretics, antacids, anti-diarrheal, antidepressants, anti-anxiety (sleeping pills), anti-allergic, anti-emetic, eye, ear, and nose drops, skin ointments, antibiotics, steroids, vitamins, tonics, and protein supplements are common medications used for self-medication. Conditions that can be treated by self-medication include headaches, body aches, fever, colds and flu, constipation, loose stools, acid reflux, generalised weakness, and insomnia. Menstrual pain, an infection of the skin, joint pain, burns, insect bites, etc.

POSITIVE OUTCOMES OF SELF-MEDICATION

Self-medication provides benefits for healthcare systems as well since it makes it easier to employ clinical skills more effectively, promotes access to medication, and could help cut the cost of prescription drugs for publicly supported health programmes.

- It aids in the prevention and treatment of ailments and symptoms that don't need medical attention
- The patient feels relief right away. This lessens the strain on healthcare systems where there are medical services. Services are inadequate and unavailable
- Expand access to healthcare in rural, remote, and mountainous locations
- The chronic illness is under the patient's control
- Beneficial for the health and efficiency of patients
- An increase in revenue for the employer
- Time and money savings for people's health care

HAZARDS OF SELF-MEDICATION

Medicines are quickly absorbed once they reach the human body. In addition, medicine is marketed quickly thanks to effective marketing and little to no regulatory oversight. They are overused, misused, and utilised inappropriately for many illnesses. e.g., without consulting a doctor or learning the source of the headache, using painkillers for a prolonged period of time. e.g., Antipyretic and analgesic paracetamol can be harmful to the liver when taken in high dosages. e.g., Human pathogen resistance bacteria are a major issue or drawback of self-medication, particularly in underdeveloped nations where antibiotics are often used and accessible without a prescription.The likelihood of negative effects is increased by its unreasonable use. Additionally, a person may become resistant to a certain antibiotic, exhibit hypersensitivity to drug withdrawal symptoms, and have a brief disease masking, all of which can delay a proper diagnosis. Some medications are outlawed on the market, but users continue to take them anyhow. The drawbacks comprise:

- An inaccurate self-diagnosis.

International Journal of Pharmaceutical research and Applications
Volume 8, Issue 4, Jul.-Aug. 2023, pp: 524-529 www.ijprajournal.com ISSN: 2456-4494

- Failing to swiftly seek appropriate medical advice.
- Incorrect therapy selection.
- Ignore unexpected pharmaceutical hazards.
- Rare yet serious negative effects.
- Failure to recognise interactions, warnings, precautions, and contraindication
- Fail to recognise that the same active ingredient is being consumed already under a different name.
- Failing to inform the prescribing doctor of recent self-medication (double medication/harmful interaction).
- Neglecting to identify or disclose negative medication responses.
- Inappropriate administration method.
- A high dosage.
- Abnormally long usage.
- Abuse and dependence risk.
- Drug and food interactions.
- Storage in unsuitable circumstances or after the suggested shelf life has passed.

SELF HELP

- Poor self-diagnosis;
- Delayed or inappropriate requests for quick medical advice.

Tip 1: Identify your patterns.
Tip 2: Modify your worldview.
Tip 3: Discover better coping mechanisms.
Tip 4: Use multiple therapies/ Combine treatments.

PREVENTION OF POTENTIAL RISKS ASSOCIATED WITH SELF-MEDICATION

Health professionals may play a crucial role in protecting patients from the risks of self-medication when they are unaware of those risks. This is thus because in his daily practise, health professionals focus on three key therapeutic aspects of professionalism: information, therapeutic guidance, and education [28].

INFORMATION

When a medical expert prescribes medication to a patient, he should provide clear instructions and an explanation of the medication's intended use. This will assist the patient understand and make his own judgements. For patients to comprehend how to manage a medicine, information about it needs to be presented at their level of comprehension [28].

THERAPEUTIC ADVICE

Ineffective therapeutic compliance to the patient is a severe issue in both acute and chronic treatments, and it is a reflection of the health professional's insufficient or poorly understood explanation of the treatment objectives. Patients who are not properly informed will not use the drug. However, if the usage recommendations and restrictions of a particular drug are described, such as the dose, frequency of doses, duration of treatment, method of administration, etc., patients will have a set of guidelines that will enable them to use the drug sensibly. Patients' inappropriate, unpredictable, and unsuitable self-medication as well as noncompliance will only be decreased if they are informed and made to comprehend the rationale behind specific recommendations.

EDUCATION

The medical model from which people have learned about self-medication has led to inappropriate self-medication. The government should regularly provide patients with appropriate health education. By adopting an educational mindset, we may affect significant portions of the population who have an immediate impact on their friends and families. When parents or other carers allow their children to self-medicate, this component is very crucial.

ROLE OF PHARMACISTS

One of the most important roles that the pharmacist plays is in educating the patients on how to use medications like OTC pharmaceuticals, which are meant for self-medication. The required actions must be implemented in their practise and training programmes to achieve this [29]. To ensure the best possible patient health and quality of life, chemists are crucial in diagnosing, resolving, and preventing drug-related issues. Ambulatory-based chemists have a chance and a duty to promote the safe, appropriate, efficient, and cost-effective use of all pharmaceuticals, particularly for those treatments that patients choose for themselves. Before taking any medication on their own, clients should be advised by pharmacists to visit a doctor.

PREVALENCE OF SELF MEDICATION

In the current study, self-medication was found to be 60% common. Studies conducted by Shamsudeen S et al. [15] and Garofalo L et al. [16] also revealed a high prevalence. However, Hajira I et al. [17], Jawarkar A et al. [18], and Chari H et al. [19] showed a lower prevalence. The high prevalence

International Journal of Pharmaceutical research and Applications
Volume 8, Issue 4, Jul.-Aug. 2023, pp: 524-529 www.ijprajournal.com ISSN: 2456-4494

seen in the current study can be related to the fact that adult study participants, who are primarily from the working class and obsessed with additional duties to be financially stable, comprise a large portion of the study population. They are consequently forced to choose a quick fix for family members' ailments in order to save time and money.The variation in prevalence seen both within and between the nations may result from the use of various self-medication definitions, variations in people's health-seeking behaviours, sociocultural factors, and seasonal variations in disease.

II. RECOMMENDATIONS

Drug regulatory health authorities must conduct inspections and invest time in educating the public about the benefits and drawbacks of self-medication so that they might change their attitudes towards the practise.

It can also be included in the curriculum for the students.

- The public, students', and chemists' health education.
- They should take a leading role in spreading health awareness.
- This might aid in incorporating the use of self-medication.
- The requirement for stringent law enforcement to control the sale of non-prescription medications.
- Pharmacists need to be educated on the legal issues of self-medication in the media, the Consumer Protection Act, and human rights.
- A crucial issue is enhancing interaction and the referral process between chemists and doctors.

III. CONCLUSION

Several investigations have shown that self-medication is a widespread practise. This page focuses on over-the-counter self-medication, including how to use it, why, what the typical medications are called, and common and minor illnesses. It is okay to self-medicate if the user is knowledgeable enough about the drug (dose, timing, adverse effects). However, if a person is also uninformed about a particular medication, this can result in major side effects. For instance, if a person has a skin condition like hypersensitivity, allergy, or anaphylactic shock, their family members may face major issues. When compared to those who lack literacy, a higher percentage of educated people self-medicate. Self-medication is widely practised in India, particularly in rural areas.Government and health authorities need toconcentrate towards this area.

Table – 1 Practice of self-medication across the globe

Country	% usage
South America	15
USA	13
Australia, Germany	11
India, UK, Spain	9
Italy, Sweden, Mexico, Switzerland	8

Table – 2 Most commonly used drugs for self medication

Medication Type	% usage
Pain killers	86
Fever drugs	65
Vitamins	57
Anti-tussive	48
Herbals	44
Antibiotics	43
Anti allergic	27
Indigestion drugs	21
Others	25
Sedatives	10
Sleeping pills	8
Birth control pills	3

International Journal of Pharmaceutical research and Applications
Volume 8, Issue 4, Jul.-Aug. 2023, pp: 524-529 www.ijprajournal.com ISSN: 2456-4494

Table – 3 Conditions for self medication

Condition / Category	% usage
Head ache	85
Common cold, cough, flu	67
Pain	56
Fever	47
Diarrhoea, vomiting	38
Allergy	25
Others	15
Insomnia	14

REFERENCE

[1]. World Health Organization: The role of the pharmacist in self care and self-medication. Report of the 4th WHO Consultative Group on the role of the pharmacist in health care system 1998. Available from: http://www.who.int/medicines/library/dap/who-dap-98-13/who-dap-98-13.

[2]. Selfcare in the Context of Primary Health Care Report of the Regional Consultation Bangkok, Thailand, 7–9 January 2009. Available from: http://www.searo.who.int/LinkFiles/Health_System_Strengthening_SEA-HSD-320.p.

[3]. The World Self-Medication Industry W.S.M.IC.I.B. – Immeuble A – "Keynes"13, Chemin du Levant 01210 Ferney-Voltaire – France WSMI is a non-governmental organization in official relations with the World Health Organization.

[4]. Abdelmoneim A., Idris E., Lloyd M., Lukman T. Self-medication with antibiotics and antimalarials in the community of Khartoum State, Sudan J. Pharm. Pharmaceutical Sci. 2005; 8:326-331.

[5]. Afolabi A.O. Factors influencing the pattern of self-medication in an adult Nigerian population. Ann. Afr. Med. 2008; 7:120–127.

[6]. Sinclair HK., Bond CM., Hannaford PC. Long term follow-up studies of users of nonprescription medicines purchased from community pharmacies some methodological issues. Drug Safety. 2001; 24:929-938.

[7]. Grigoryan L, Burgerhof JG, Haaijer-Ruskamp FM, et al.: Is self-medication with antibiotics in Europe driven by prescribed use?J. AntimicrobChemother.2007, 59:152-6. 10.1093/jac/dkl457.

[8]. Limaye D, Limaye V, Fortwengel G, Krause G: Self-medication practices in urban and rural areas of western India: a cross sectional study. Int J Community Med Public Health.2018, 5:2672-85. 10.18203/2394-6040.ijcmph20182596.

[9]. Vaananen MH,Pietila K, Airaksinen M: Self-medication with antibiotics—does it really happen in Europe? .Health Policy.2006, 77:166-71. 10.1016/j.healthpol.2005.07.001.

[10]. World Health Organization. The Role of the Pharmacist in Self-Care and Self-Medication.Hangue: World Health Organization; 1998. p. 17.

[11]. Federation International de Farmacia. The World Self- Medication Industry. Joint Statement: Responsible Self-Medication; 1999. Available from: http://www.wsmi.org/pdf/fip.pdf. [Last accessed on 2015 Oct 24].

[12]. World Self-Medication Industry. WSMI Declaration on Self-Care and Self Medication, 2006a. Available from: http://www.wsmi.org/pdf/boarddeclarationselfcare.pdf. [Last accessed on 2015 Oct 28].

[13]. Carmak V, Pakyaz SC. A methodological study: development of rational drug use scale. AnadoluHemşirelike SağlıkBilimDerg. 2020;23(4):498–507.

[14]. Bin ZS, Hussain MA, Nye R, Mehta V, Mamun KT, Hossain N. A review on antibiotic resistance: alarm bells are ringing. Cureus. 2017;9(6):1403.

[15]. Ruiz ME. Risks of self-medication practices.Curr Drug Saf. 2010;5(4):315–23.

[16]. Mortazavi SS, Shati M, Khankeh HR, Ahmadi F, Mehravaran S, Malakouti SK. Selfmedication among the elderly in Iran: A content analysis study. BMC Geriatr2017; 17:112.

[17]. Da Silva MGC, Soares MCF, MuccilloBaisch AL. Selfmedication in university students from the city of Rio Grande, Brazil. BMC Public Health 2012; 12:17.

[18]. World Health Organization (WHO). WHO supports scientifically prevent traditional

medicine 2020. Available from: https://www. Afro.who.int/news/ whosupportsscientificallyprevent traditionalmedicine. [Last accessed on 20/05/2020].

[19]. Shamsudeen SM, Priya RS, Sujatha G, Muruganandhan J, Manikandan K: Self-medication with antibiotics: a knowledge, attitude, and practice appraisal of 610 dental patients in Chennai, India, from 2016 to 2017. J Educa Health Promote. 2018, 7:66. 10.4103/jehp.jehp_143_17.

[20]. Garofalo L, Di Giuseppe G, Angelillo IF: Self-medication practices among parents in Italy. Biomed Res Int. 2015, 2015:580650. 10.1155/2015/580650.

[21]. Selvaraj K, Kumar SG, Ramalingam A: Prevalence of self-medication practices and its associated factors in Urban Puducherry, India. PerspectClin Res. 2014, 5:32-6. 10.4103/2229-3485.124569.

[22]. Panda A, Pradhan S, Mohapatro G, Kshatri JS: Predictors of over-the-counter medication: a cross- sectional Indian study. PerspectClin Res. 2017, 8:79-84. 10.4103/2229-3485.203043.

[23]. WHO. Guidelines for the Regulatory Assessment of Medicinal Products for use in self Medication. Geneva: WHO; 2000.

[24]. Hernandez Juyol M, Job Quesada JR. Dentistry and self-medication: A current challenge. Med Oral 2002; 7:344-7.

[25]. Gupta S, Khajuria K, Bhat NK, Khajuria V, Mehra A. Assessment of the knowledge, attitude and practice of self-medication among second year undergraduate medical students in a tertiary care teaching hospital. Int J Basic ClinPharmacol. 2019;8(5):1090.

[26]. Al Essa M, Alshehri A, Alzahrani M, Bustami R, Adnan S, Alkeraidees A, et al. Practices, awareness and attitudes toward self-medication of analgesics among health sciences students in Riyadh, Saudi Arabia. Saudi Pharm J. 2019;27(2):235–9.

[27]. Sadio AJ, Gbeasor-Komlanvi FA, Konu RY, Bakoubayi AW, Tchankoni MK, Bitty-Anderson AM, *et al*. Assessment of self-medication practices in the context of the COVID-19 outbreaking Togo. BMC Public Health 2021; 21:1-9.

[28]. Saba H, Shivananda K, Jayan M, Hussain C. Prevalence of self-medication practices and its associated factors in rural Bengaluru, Karnataka, India. Int J Commune Med Public Health2017; 3:1481-6.

[29]. Wilbur K, Salam SE, Mohammadi E. Patient perceptions of pharmacist roles in guiding self medication of over the counter therapy in Qatar. Patient Prefer Adherence 2010; 4:87-91.