

REVIEW ARTICLE

Concept of Self Medication: A Review

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ABSTRACT

This article presents a review on self medication, which can be defined as the use of medicine without any professional supervision. It aims to find the reason of self medication and make public aware about its effects and side effects. People use it for the treatment of any disease symptoms or minor ailments by their self initiative. The most commonly available OTC medications are pain killers, cough and cold remedies, anti-allergy medicines, vitamins and energy tonics. Although these medications are considered risk free and useful for the treatment of common health problems, their excessive use can also lead to serious side effects and unfavorable reactions. The percentage of self medication might be changes with locality and region. Prevalence of self medication is high in professional students. Many of the national and international journals on the self medication were reviewed for their findings and report on different parameters. There are several drug stores, which provide the medicine without any prescription and its percentage is increasing day to day in India. Presently the frequency is high of self medication by the young ones and literate people who do not have much time to go to physician. This review conclude the benefit (when drug is used in limit and its use, characteristics are known), drawback (when people have no idea about its use and limitations) of drugs and their safe use.

**Key words:** Self Medication (SM), Role of Pharmacist, Self Care, OTC drugs.

INTRODUCTION

Self medication is a major form of self-care<sup>[1]</sup>. It involves the use of medicinal products by the consumer to treat self recognized disorder, symptoms, recurrent disease or minor health problems<sup>[2, 3, 4]</sup>. It is independent of age for both males and females<sup>[5]</sup>. Medicines for self medication are often called Over the Counter (OTC) drug, which are available without a Doctors prescription through pharmacies, mostly in the less developed countries<sup>[6, 7]</sup>.

Recent development of the pharmaceutical companies contribute to a wide spread availability of OTC Medicine<sup>[8]</sup>. There is also the potential for misuse and abuse of such products<sup>[9, 10]</sup>. A major problem of self medication with antimicrobials is the emergence of human pathogens resistance world wide particularly in developing countries, where antibiotics are often available without a prescription<sup>[11]</sup>. Its irrational use increases the risk of adverse events, bacterial infection, Hypersensitivity, Drug withdrawal

symptom and of masking disease which can delay correct diagnosis<sup>[4, 11, 12, 13]</sup>. Self medication is a global problem, 47.6% prevalence of self medication has been reported among the infant in Nigeria. Abdominal pain, constipation, fever and cough are the most common symptom of infants that that are frequently treated with self medication in Nigeria<sup>[14]</sup>. It is linked to perceived quality of a country's health care system, even in industrialized countries: many simple medications are available for routine use and are sold in Drug store and supermarket also<sup>[15]</sup>. Self medication is a common practice and internationally has been reported as being on rise and can produce a good result and be a convenient practice for patient<sup>[16, 17]</sup>. Self medication particularly with antibiotics has been widely reported leading the WHO to call attention to the dangers of self medication as a cause of antibiotic resistance<sup>[7, 18, 19, 20, 21]</sup>. In country like India there is a wide range of drugs coupled with inadequate health service result in increase proportion of drug used as a self

medication compared to prescribed drugs, show in Table 1<sup>[17, 22, 23]</sup>.

**WHY DO PEOPLE USE SELF MEDICATION?**

Modern consumers (patients) wish to take a greater role in the maintenance of their own health and are often competent to manage (uncomplicated) chronic and recurrent illnesses (not merely short-term symptoms) after proper medical diagnosis and with only occasional professional advice, e.g. use of histamine H<sub>2</sub>-receptor blocker, topical corticosteroid, antifungal and oral contraceptive. They are understandably unwilling to submit to the inconvenience of visiting a doctor for what they rightly feel they can manage for themselves, given adequate information<sup>[24]</sup>.

Self medication is very common and a number of reasons could be enumerated for it<sup>[25, 26]</sup>. Urge of self care, feeling of sympathy towards family members in sickness, lack of health services, poverty, ignorance, misbelieves, extensive advertisement and availability of drugs in other than drug shops are responsible for growing trend of self medication<sup>[27]</sup>.

According to a report the reason for self medication, given in fig.1.<sup>[28]</sup> Male (35.48%) and female (15.56%) used Self Medication due to the

**Table 1: List of drugs used for self medication**

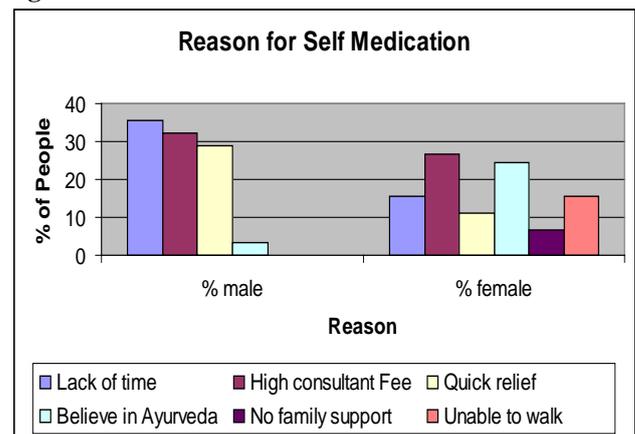
S.No.	CATEGORY	DRUGS
1	Cough & Cold	D-Cold total Corex Benadryl Glycodin
2.	Analgesics	Saridon Disprin Nise Diclofenac Nimesulide
3.	Antipyretics	Paracetamol Ibuprofen Calpol Crocin
4.	Antiseptic	Dettol Boroplus
5.	Antibiotics	Ciprofloxacin Norfloxacin Amoxicillin Cefadroxil
6.	Others	Dabur Chyawanprash Hajmola

**WHY DO PARENTS USE SELF MEDICATION TO THEIR CHILDREN?**

Parents who self-medicate their children are more likely than adults who medicate themselves to say they do so because the illness isn't serious enough

Lack of time, 32.26% male and 26.67% female used self medication due to High consultant Fee of Physician, 29.03% male and 11.11% female wants Quick relief, 3.33 % male and 24.44% female believe in Ayurveda, There are some cases of female (6.67%) in which there is no family support hence they uses self medication, 15.56% female used self medication due to unable to walk. There are some other reasons like wider availability of medicine, greater choice of treatments, ease of access<sup>[29]</sup>, an active role in his/her own health care and self reliance in preventing or reliving minor symptoms or condition, ailment was minor and financial constraint<sup>[30]</sup>.

**Figure.1: Reason for self medication**



to warrant a visit to the doctor (88% parents of children under 18 vs. 78% adults in general)<sup>[31]</sup>.

1. Parents are also more likely than adults in general to believe that non-prescription

Medications are just as effective as prescription drugs.

- Adults who self-medicate are more likely than parents who medicate their children to say they do so in order to save money (70% adults in general vs. 57% parents of children under 18) or avoid a trip to doctor's office (78% adults in general vs. 65% parents of children under 18).

### DUTIES OF PHARMACIST

Duties of the pharmacist have been changing over the past two decades with self treatment increasing worldwide [11]. He can play a key role in giving advice to consumers on the proper and safe use of medicinal products intended for self medication. It is important, therefore to take this role into account both in their training and in practice.

In other words pharmacists play a valuable role in identifying, solving, and preventing drug-related problems (DRPs) for the purpose of achieving optimal patient outcomes and quality of life. Ambulatory based pharmacists have the opportunity and responsibility to foster safe, appropriate, effective, and economical use of all medications, especially those therapies patients are self-selecting. Pharmacists are uniquely trained to assist patients in the selection of appropriate drug therapy and the circumstances under which a physician should be consulted before patients embark upon independent self-care [32]. Unlike above role, Pharmacists have following function [33].

#### As a communicator:

In order to address the condition of the patient appropriately the pharmacist must ask the patient key questions and pass on relevant information to him or her (e.g. How to take the medicines and how to deal with safety issues).

#### As a quality drug supplier:

The pharmacist must ensure that the products he/she purchases are from reputable Sources and of good quality.

#### As a trainer and supervisor:

To achieve this pharmacist must develop a protocol for referral to the pharmacist, protocols for community health workers involved with the handling and distribution of medicines.

#### As a collaborator:

It is imperative that pharmacists develop quality collaborative relationships with the other health care professionals, National professional associations, the pharmaceutical industry, Governments (local/national), Patients and general public.

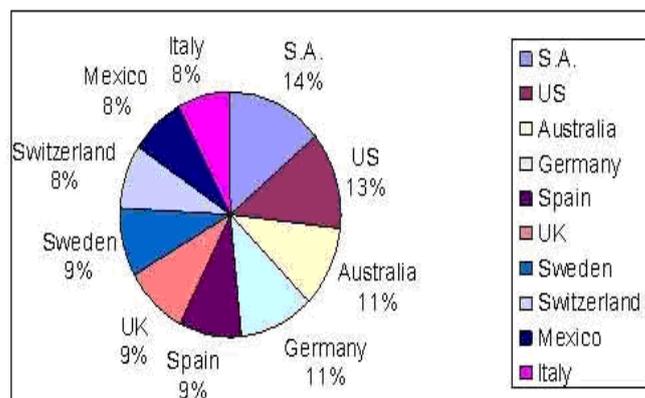
### As a health promoter:

As a member of the health-care team, the pharmacist must participate in health screening to identify health problems and those at risk in the community, participate in health promotion campaigns to raise awareness of health issues and disease prevention, provide advice to individuals to help them make informed health choices.

### SELF MEDICATION: WORLD WIDE

The concept of self medication which encourages an individual to look after minor ailments with simple and effective remedies has been adopted worldwide [34]. People hold the view that medicine should be used in the event of any sickness or discomfort. In the United Kingdom where on the average 50% of health care takes place within the realm of self medication [2]. Self medication is very common now a days and it is being used world wide, given in (Fig.2) [35].

**Figure. 2: Percentage of People using Self medication, world wide**



### SAFE USE OF SELF MEDICATION

Safety in self medication (an overriding requirement) depends on four parameters [24]

- Drug: Its inherent properties, dose and duration of use, including its power to induce dependence.
- Formulation: devised with unsupervised use in mind, e.g. low dose.
- Information: available with all purchases (printed) and rigorously reviewed (by panels of potential users) for user friendliness and adequacy for a wide range of education and intellectual capacity.
- Patient compliance.

### CONDITIONS TREATED BY SELF MEDICATION

There is a wide variety of conditions, given in fig.3. In which OTC drugs are used [16, 32]. Most commonly available OTC medications are pain killers, cough and cold remedies, anti-allergy medicines, vitamins and energy tonics. Although these medications are considered risk-free and useful for the treatment of common health

problems, their excessive use can also lead to serious side-effects and unfavorable reactions [8]. Generally Consumers tend to utilize private pharmacies rather than public facilities for self medication [7, 36].

### HOW DO PEOPLE GET INFORMATION FOR SELF MEDICATION?

There are various sources from where people get information [37] like, a pharmacist, Household members, product information leaflet, friends, relatives (not healthcare professionals), advertisements.

### ADVANTAGES & DISADVANTAGES OF SELF MEDICATION

#### Advantages:

Expected health benefit from self medication depends on perceived effectiveness of self medication [38]. In a world of scarce government and in many countries scarce individual resources, responsible self medication should be a cornerstone of healthcare provision and health policy. Responsible self medication can:

1. Help to prevent and treat symptoms and ailments that do not require a doctor.
2. Reduce the pressure on medical services where health care personnel are insufficient.
3. Increase the availability of health care to populations living in rural or remote areas.
4. Enable patients to control their own chronic conditions.

These benefits translate into patient and consumer wellness and productivity, economic gain for employers, and cost savings to healthcare budgets through reduced medicine budget cost and reduced physician visits. These conditions aim at ensuring the safety of taking self medicated drugs. They include the following: the drugs used are those indicated for conditions that are self recognizable; the user should know how to take or use the drugs; the effects and possible side effects of the drugs as well as ways of monitoring these side effects are well communicated to the user; possible interactions with other drugs is known by the user; duration of the course of the drugs is known by the user and, when the user must seek professional intervention [39].

#### Disadvantages:

Modern medicine have become absorbed rapidly in to the local custom through out the world, their ubiquitous distribution, powerful marketing and poor control mean that they are used and misused for a wide range of applications [40]. Misuse is defined as using an OTC product for a legitimate medical reason but in higher doses or for a longer

period than recommended, e.g. taking more of a painkiller than recommended to treat a headache. Reports have proven that Paracetamol, an antipyretic and analgesic in large doses can cause liver failure. Paracetamol toxicity is, by far, the most common cause of acute liver failure in both the United States and the United Kingdom. It is also not a very greatly advertised fact that coffee consumed with Paracetamol or too much of alcohol consumption in association with the drug usage, can cause unprecedented liver failure rates [41, 42].

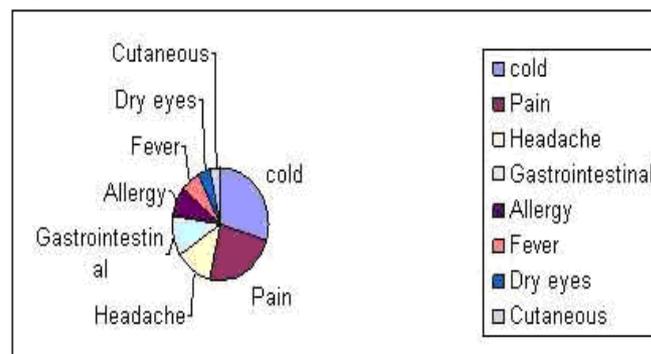
### PROMOTION OF RESPONSIBLE SELF MEDICATION

The OTC Committee of the Organization of Pharmaceutical Producers of India (OPPI) is working towards the promotion of responsible self-medication with a view to grow the OTC sector. It is aiming to get regulatory support for issues such as the accessibility of household TC remedies and increasing the awareness of the importance of responsible self-medication with the general public and the Government [43].

#### Growth of OTC Sales in India:

The sale of analgesic rises 15.8% in 2009 which was 10.7% in 2008. Vitamins, minerals and other supplements are increased by 8.8% from 8.2%. Gastrointestinal drugs rises up to 10.4% and other OTC drugs increased by 38.9 %.( **Fig.3**)

**Figure. 3: Patient preferences for OTC drug**



### CONCLUSION

Several research papers show that self medication is a global phenomenon. This review focused on the self medication of the OTC drugs, their use, its safety and reason for using it. It would be safe, if the people who are using it, have sufficient knowledge about it's Dose, time of intake, side effect on over dose, but due to lack of information it can cause serious effects like skin problem, hypersensitivity and allergy. With increasing the literacy, the demand of self medication also increasing day by day. The ratio of literate people who are using the self medication is high as compared to that of illiterate people.

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